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BALTIMORE, AUGUST 8, 1912.

## SOUTHERN RAILROADS' INTER- EST IN DIVERSIFIED FARMING.

In the Bradentown region of Manatee section of Florida last year 450 acres of land yielded 500 carloads of celery, 2200 acres yielded 500 carloads of tomatoes, 1000 acres yielded 362 carloads of lettuce and 200 acres yielded 82 carloads of other vegetables, a total of 1444 carloads of vegetables from 3826 acres of land, an average of something more than one-third of a carload from an acre. In the past season 14,000 acres of land in the neighborhood of Charleston, S. C., yielded 4000 carloads of cabbages, 1000 carloads of potatoes, 800 carloads of cucumbers, 600 carloads of beans and 500 carloads of asparagus, lettuce, beets, turnips, radishes, etc., a total of 6900 carloads, or an average of nearly half a carload from an acre. From the Laredo section of Texas are shipped annually from 1700 to 2500 carloads of Bermuda onions, grown on about the same number of acres, the average yield per acre being 480 crates of fifty pounds each, or 24,000 pounds. Every year thousands of carloads of Georgia peaches, of Virginia, West Virginia and Arkansas apples, of Louisiana, Tennessee and North Carolina strawberries, of miscellaneous vegetables and fruits from many sections along the coast from the Hampton Roads basin to the Rio Grande, of citrus fruits from Florida and of nuts from four or five of the Southern States are carried by rail to distant parts of the country.

In this distribution of the good things of life, which has almost abolished seasons as far as foodstuffs are concerned, there have developed many efficient organizations of growers, and their wise

plans for marketing have been made possible of fulfillment through the enterprise of great railway systems, with their refrigerator trains, pre-cooling stations and cold-storage plants. Of prime importance in this movement, which has developed largely in the past twenty-five years, is the tremendous impetus given to diversification of agriculture, in which it originated, and to the recognition of transportation interests of the mutual advantages to them and to the farmers in diversification. Agriculture is one of the most conservative activities of the human race. In it, it is quite difficult to overcome old methods and old habits and to adapt oneself to changing conditions. But in recent years, however, partly through necessity and partly under the spur of enlightened opinion, Southern agriculture has come to realize more and more that, everything else being equal, the best crop for a farmer to make is the crop that will yield the most per acre. On another page of this issue is an article comparing, for ten staple crops in the South, the yields per acre in quantities and values which should open the eyes of the South to the material good to be derived from diversification. In the following table the production per acre by States reduced to pounds for purposes of comparison is shown:

Southern Production Per Acre, in Pounds.

States	Cotton with Seed	Peanuts	Oats	Wheat	Tobacco	Corn	Rice	Hay	Sweet Potatoes	Irish Potatoes
Ala.	376	343	403	498	429	666	843	2100	4389	4674
Ark.	400	363	522	522	417	829	2106	2120	3765	4236
D. C.	...	...	874	...	...	1063	...	4460	8550	8502
Fla.	370	405	450	822	879	650	891	2020	5682	6042
Ga.	512	352	483	486	734	650	1035	2060	4862	4476
Ky.	578	482	444	768	848	1361	...	1980	6138	5508
La.	354	362	451	450	332	918	1535	2720	4103	3612
Md.	...	660	614	960	685	1551	...	2400	7365	5256
Miss.	412	447	419	708	380	734	774	2440	4740	4638
Mo.	738	543	739	888	989	1506	...	2260	6182	4860
N. C.	641	673	396	456	626	773	977	1960	5511	4290
Okl.	256	448	874	720	616	890	...	2100	3271	3528
S. C.	626	447	566	432	850	745	1251	1780	4664	5454
Tenn.	425	634	442	630	760	1204	...	2040	4775	4266
Tex.	280	367	512	474	502	823	1701	1920	3570	3711
Va.	532	649	423	702	717	1154	...	2120	7230	5650
W. Va.	...	...	534	738	801	1417	...	1800	5807	5359
Total	410	491	592	744	768	1019	1611	2100	4917	4926

A study of these figures should encourage Southern railroad companies in their work of speeding diversification as a direct means of increasing their revenues. Much of the freight originating in the South consists of cotton, and the greater portion of the crop is moved at some time by rail. If the railroads handled all of the average cotton crop, with its seed, they would carry 9,500,000 tons, but that amount would represent only an average production of 410 pounds to the acre, the smallest quantity among the ten leading crops. That tonnage would have been derived from about 30 per cent. of the acreage devoted to the ten crops in 1909, whereas the greater opportunities in the nine other crops have

vested from the remaining 70 per cent. of the acreage is suggested in the average acre production of 491 pounds of peanuts, not including the valuable peanut-vine hay; 592 pounds of oats, 744 pounds of wheat, 768 pounds of tobacco, 1019 pounds of corn, 1611 pounds of rice, 2100 pounds of hay and forage, 4917 pounds of sweet potatoes and 4926 pounds of Irish potatoes. The growing of four of these nine crops, peanuts, tobacco, rice and sweet potatoes, is dominated by the South; at least three of them are necessities, and all of them, with the exception of rice, can be grown in every Southern State. The productivity per acre of none of these crops has yet been brought up to its maximum; nor is more than half of the acreage available for any of them now utilized. To meet the requirements of the population of the country, increasing at the rate of about a million and a half a year, all of the available Southern farm acreage must in time come under cultivation, and all of it must be cultivated up to its limits. The railroad which encourages the filling up of empty acres and the raising on all acres of full and diversified crops is not only an agency for the upbuilding of the South unequalled in influence in many respects, but it is laying deep and broad foundations for its own fortune.

## THE SOUTH'S IMPORTANCE IN THE COUNTRY'S FOREIGN TRADE.

Not enough gold was mined in the world in the calendar year 1911 to pay for the raw cotton of the South exported from this country in the fiscal year ended June 30, 1912. The value of that cotton exported was \$565,849,271, or 25.7 per cent. of the aggregate value of all merchandise exported from the country in the fiscal year. The \$50,769,511 worth of manufactured cotton exported, the \$24,089,223 of cottonseed oil, the \$17,325,858 of cottonseed meal and cake and the \$727,100 of cottonseed added to the value of the raw cotton exports bring the total value of the exports based upon a single Southern

product, cotton, to \$658,769,963. That amount was 29.9 per cent. of the value of all exports. All the exports of phosphate rock, valued at \$8,982,934, and all of naval stores, valued at \$26,754,987, were produced in the South. In addition, there should be credited to the production of the South \$78,000,000 represented in exports of wood and its manufactures, \$41,000,000 in tobacco, \$40,000,000 in petroleum, \$34,000,000 in coal, and at least \$115,000,000 in breadstuffs, meats, iron and steel goods and miscellaneous articles.

Thus the total contributions of the South to the country's exports had an aggregate value of \$1,002,000,000, or 45.5 per cent. of the total value, \$2,204,000,000, of all merchandise exports of the country.

Of the total value 34.9 per cent., or \$769,678,632, was represented in the merchandise that was shipped abroad through Southern ports.

Comparison of exports by separate customs districts in the past two fiscal years is made in the following table:

Exports by Southern Districts.

Customs Districts.	1911.	1912.
Apalachicola, Fla.	\$367,382	\$791,095
Baltimore, Md.	85,129,843	92,210,877
Beaufort, S. C.	15,000	45,000
Brazos de Sant., Tex.	511,529	1,041,789
Brunswick, Ga.	14,138,847	19,889,838
Charleston, S. C.	8,959,359	12,423,635
Corpus Christi, Tex.	12,876,196	10,404,250
Fernandina, Fla.	7,549,342	6,529,640
Galveston, Tex.	229,594,917	218,146,097
Georgetown, D. C.	3,974	...
Georgetown, S. C.	14,689	...
Jacksonville, Fla.	2,647,882	2,329,322
Kansas City, Mo.	371,879	537,974
Key West, Fla.	1,557,968	1,599,292
Louisville, Ky.	...	19,991
Mobile, Ala.	39,154,937	31,230,117
New Orleans, La.	172,835,293	149,160,910
Newport News, Va.	5,468,480	6,348,751
Norfolk, Va.	9,628,932	11,998,504
Paso del Norte, Tex.	6,914,994	6,172,436
Pearl River, Miss.	11,368,490	10,849,483
Pensacola, Fla.	29,505,873	23,886,645
Richmond, Va.	26,972	7,800
Sabine, Tex.	23,981,681	22,964,280
St. Louis, Mo.	2,000	1,277
St. Marks, Fla.	1,064,916	1,026,390
St. Marys, Ga.	14,974	57,699
Saluria, Tex.	4,749,619	7,694,307
Savannah, Ga.	72,076,945	104,286,925
Tampa, Fla.	5,636,696	4,609,640
Wilmington, N. C.	28,812,543	28,765,448
Total South	\$747,822,318	\$769,678,632
United States	\$2,049,329,199	\$2,204,000,000

Study of this table reveals a number of interesting facts bearing upon the steady growth of Southern ports as factors in the foreign commerce of this country.

Galveston, ranking second among the ports of the country in the value of its exports, exported to the value of \$218,146,097, or \$90,003,766 more than the value of combined exports from all the Pacific ports of the United States.

New Orleans, ranking third, had exports valued at \$149,160,910, or \$10,390,009 more than the combined exports of Boston and Philadelphia.

Savannah, ranking fourth, had exports valued at \$104,286,925, or more than twice the exports of San Francisco.

Because of the lower price of raw cotton, the value of cotton exports in

1912 was \$19,500,000 less than in 1911, notwithstanding the fact that 2,846,000 more bales went abroad. Hence the slight increase in the total value of exports from Southern ports, from \$747,822,348 to \$769,678,632, or by \$21,856,284, equal to 2.9 per cent., as compared with an increase of 10.1 per cent., from \$1,301,497,851 to \$1,434,643,777, or by \$133,145,926, in the rest of the country.

There were exports from ninety-one customs districts or ports, of which thirty-one are Southern. Of the total number, fifty-five had increases in values, sixteen of them being Southern, and thirty-six had decreases, fifteen of them being Southern. The greatest increase in any section was at the Atlantic Coast districts. It amounted to \$96,210,442. More than 52 per cent. of that increase was at the Atlantic districts of the South, \$50,364,857, or at the rate of 21.5 per cent., while the increase of \$45,845,585 at North Atlantic districts was at the rate of 14.9 per cent. Among the Atlantic Coast districts Savannah ranked second in value of exports, next to New York.

Since 1880 exports to the value of \$13,629,517,672 have passed through Southern ports, and their annual value has increased from \$264,905,753 to \$769,678,632, or by \$504,772,879, equal to 190.5 per cent., while the increase at all other ports has been at the rate of 151.3 per cent., from \$570,732,905 to \$1,434,643,777, or by \$863,910,872. The aggregate value of imports through Southern ports in the same period is \$2,175,761,868, the annual value having increased from \$35,906,400 to \$161,090,056, or by \$125,183,596, equal to 348.6 per cent., while the increase at all other ports has been at the rate of 136.1 per cent.

Comparison of the values of imports by districts in the past two fiscal years is made in the following table:

Imports by Southern Districts.		
Customs Districts.	1911.	1912.
Alexandria, Va.....	\$1,200	\$1,500
Apalachicola, Fla.....	64	1,010
Atlanta, Ga.....	252,745	277,469
Baltimore, Md.....	32,174,404	26,438,430
Brazos de Sant., Tex.....	216,557	218,912
Brunswick, Ga.....	188,783	76,618
Charleston, S. C.....	6,216,573	5,924,674
Chattanooga, Tenn.....	51,158	55,578
Corpus Christi, Tex.....	1,481,374	1,489,835
Fernandina, Fla.....	52,833	45,774
Galveston, Tex.....	3,530,945	4,309,758
Georgetown, D. C.....	837,249	1,131,915
Houston, Tex.....	362,566	444,670
Jacksonville, Fla.....	892,581	1,354,000
Kansas City, Mo.....	1,801,872	1,838,150
Key West, Fla.....	1,499,285	1,123,028
Knoxville, Tenn.....	14,052	11,835
Louisville, Ky.....	786,025	757,000
Memphis, Tenn.....	275,415	175,281
Mobile, Ala.....	4,631,737	4,633,907
Nashville, Tenn.....	81,738	92,345
New Orleans, La.....	66,722,235	75,089,887
Newport News, Va.....	1,844,947	1,964,586
Norfolk, Va.....	2,078,554	1,809,371
Panama, N. C.....	20,069	663
Paso del Norte, Tex.....	3,156,024	4,680,396
Pearl River, Miss.....	35,757	65,850
Pensacola, Fla.....	2,121,314	1,534,125
Petersburg, Va.....	251,232	372,775
Richmond, Va.....	998,929	928,516
Sabine, Tex.....	173,815	728,156
St. Augustine, Fla.....	9,833	11,012
St. Joseph, Mo.....	203,921	235,191
St. Louis, Mo.....	6,025,958	6,054,566
St. Marks, Fla.....	14,055	6,327
Saluria, Tex.....	6,386,846	5,142,795
Savannah, Ga.....	5,296,746	5,129,979
Tampa, Fla.....	4,018,352	4,752,475
Wilmington, N. C.....	3,205,497	3,090,703
Total South.....	\$157,311,256	\$161,090,056
United States.....	\$1,527,966,105	\$1,653,354,934

For the whole country the rate of increase in the value of imports in the two years, 8.2 per cent., was greater than the rate of increase in the value of exports, and the rate of increase in the value at Southern ports was only 2.4 per cent.

From the standpoint of commercial interests at the ports, engaged in financing or facilitating the movement of merchandise, anxious to have both outward-bound and inward-bound freight, it is extremely desirable that the volume of imports should approximate that of exports. But from the stand-

point of the general welfare of a country or of a section, it is much more desirable that the value of exports should far exceed that of imports, as reflecting capacity to produce both for home use and for sale abroad, and the value of exports rises as the merchandise changes from material for manufacturing to the finished wares—for instance, from raw cotton to cotton cloths.

#### THE SOUTH'S OPPORTUNITY IN LIVE-STOCK RAISING.

The country at large must give increased attention to raising live-stock, or else we shall have to face the certainty of still higher prices for meats. It is especially important that the South, where live-stock raising can be carried on to such great profit, should give increased attention to the raising of cattle, sheep and swine. The census reports show that in 1900 the United States had 67,719,000 cattle, while in 1910 the number was 61,225,000, an actual decline of 6,500,000 head. During the same period the number of sheep in the United States decreased from 61,500,000 head to 51,800,000, a falling off of nearly 10,000,000. In the same period there was a decline in the number of swine from 62,868,000 to 58,000,000. Here is an aggregate decrease of cattle, sheep and swine in one decade of 20,000,000 head, notwithstanding the fact that during that same period the population of the country increased over 15 million.

Not only did we have a gain of more than 15 million in the population with a decrease of 20,000,000 head of live-stock, but we had an enormous increase in city population, in industrial employment, and a higher rate of wages, which resulted in an enlarged demand for all foodstuffs, and especially for meats.

During the last quarter of a century we have drawn heavily upon our country population for industrial laborers. Of recent years tens of thousands of young men have left the country and found employment in cities as conductors, motormen, chauffeurs, clerks and in all the varied activities of city life which have been intensified during the last ten years as never before. These changes have wrought revolutionizing influences in many directions. It is not only as some one has said, a higher living that costs more, but it is also a higher cost of living that we face, due to these economic conditions which prevail not only in the United States, but to a large extent throughout the world. We are in an industrial era which has made great inroads upon the farming population. At the same time the farmers of the country are not giving to the raising of live-stock the attention which that industry should receive as one of the fundamental conditions for broad, general prosperity, since the value of live-stock on each farm consists not only in the profit on the meat produced, but the added profit of the fertilizer returns to the soil. In fact, cattle and sheep can be made successful fertilizer factories, taking the raw material in the shape of grass and grain and producing a large amount of fertilizer, as well as meat. It is claimed that the value of cattle for the manure produced is about \$25 per head a year, if this manure be properly saved and put back upon the soil.

These facts are of especial importance to the South, as well as to all foodstuff consumers throughout the country. It is important that these

facts should be reiterated and reiterated, or else we shall go along with a decreasing supply of live-stock until suddenly confronted by economic forces of high prices which will compel a lessening in the amount of meat consumed and a sudden turn to live-stock raising, whereas a healthier development would be to understand these things in advance and to prepare to avoid them.

It is to be regretted that, notwithstanding the increase in population, in industrial development and in city building activities, the South is relatively, like the rest of the country, producing less live-stock than it did in 1880. A well-rounded development of the farming interests of the South at that time, in which the planter directed the work of his slaves, resulted in a large production of grain and live-stock, making the South more independent of other sections for foodstuffs than it has been since then. It might have been expected that the tremendous drain on the food supply of the South during the war would have resulted in a great shortage of cattle and hogs for the next ten or fifteen years after the war, but it is a lamentable fact that during the last thirty years of general business revival throughout the South and the great increase in grain and cotton production, live-stock interests have relatively declined in this section as elsewhere. This is strikingly shown in the number of sheep and swine in the South at different periods. In 1880 Alabama had 347,000 sheep. In 1910 the sheep industry in that State was so small that it then had only 142,000 sheep. In 1880 Alabama had 1,252,000 swine. In 1910, thirty years later, it had 1,266,000 swine, practically the same number, though in that period the population of the State had grown from 1,262,000 to over 2,000,000. In the number of cattle there was some increase, the total number in the State in 1910 being 931,000, as compared with 675,000 in 1880. The heavy decline in sheep and the relative decline in swine more than offset the increase in cattle.

Alabama is not an exception in respect to live-stock production in the South. In 1880 Georgia had 527,000 sheep, and in 1910 it had only 187,000. During that period there was a gain in Georgia of 300,000 head of swine. But this was not in proportion to the increase in population.

Taking the South as a whole, notwithstanding the great development of Texas and Oklahoma, the number of cattle in this section in 1880 was greater in proportion to population than it is today. The same thing is true of the entire country.

Comparing the number of swine in the entire country with the population, there was an average in 1880 of 8 to every inhabitant. By 1910 this has decreased to 5.9 per capita. In the South there was an average of 11.3 swine for each inhabitant in 1880, but by 1910 this had decreased to 6.9 per capita.

In the country at large there was an increase in that period of 34.7 per cent. in the number of sheep, but in the South there was a decrease of 15.9 per cent.

Between 1880 and 1910 the number of cattle in the South increased 52.8 per cent., a very large portion of this gain being in Texas. With an increase of 52 per cent. of live-stock, there was a gain of 74.4 per cent. in population, thus showing relatively a large decrease in the supply of cattle in proportion to the population.

In the country at large the number of cattle increased between 1880 and 1910 at the rate of 90.6 per cent., while the population increased at the rate of 87 per cent. On their face these figures would indicate that in the rest of the country the supply of live-stock was keeping up with the population, but all of this gain was made in the twenty years between 1880 and 1900. The striking fact of serious import to the whole country, and which should receive the attention of everybody interested in the welfare of the land, is that during the decade of 1900-1910 there was a decrease of 6.9 per cent. in the number of live-stock, though there was a gain of 21 per cent. in the population.

The South ought easily to have twice as many head of cattle as it now has. The total number at present is 21,000,000, of which nearly 7,000,000 are in Texas and nearly 2,000,000 in Oklahoma. If the South doubled the number of its cattle, which it could easily do, and added 21,000,000 to what it now has, properly handled the fertilizer material thus produced would, on a basis of \$25 per head as the value of the fertilizer material to each head of cattle, add a total of \$500,000,000, which would, in effect, be an actual addition to the annual value of the South's wealth, since this fertilizer material would cost nothing to produce. It must not be understood that in the present way of turning live-stock loose to roam over the woods and through swamps in many parts of the South that there is any value in them from the fertilizing point of view, but a better system of cattle-raising would make feasible such possibilities.

#### RELICS.

One of the foremost experts of the South, who is in closest touch with the manufacturing and railroad interests of that section, in a letter heartily commending a recent editorial in the MANUFACTURERS RECORD, headed "The Call of the South to the Financiers Who Control Southern Railroads," writes:

I believe the capitalists are beginning to realize the need for spending large sums of money in the South, but they have not yet gotten over their fear of agitation which may reduce the returns on such investment. On the other hand, the people have not gotten over their irritation at and dissatisfaction with inefficient and unsympathetic service, much of which is not necessarily due to present physical conditions, but is a relic of the time when the ordinary railroad officials, a number of whom are still in the saddle, imagined that the public had no right which it was their duty to respect.

It will be well if railroad officials ponder very seriously over the last paragraph of that letter.

#### HOW TO GET TOGETHER.

The Champion Manufacturing Co. of Greensboro, N. C., in a letter referring to various kinds of machinery and supplies needed, writes:

The notice you gave us some time ago resulted in our finding exactly what we wanted, and while we have all along known that the MANUFACTURERS RECORD was an honor to the South, we did not really know how powerful it is.

The information published in our Construction Department and in the column of Machinery and Supplies Wanted brings the people of the South and the North and West into the closest business relationship. The man who wants to buy and the man who wants to sell are both benefited. The MANUFACTURERS RECORD always welcomes requests for information about machinery of any kind, whether it comes from subscribers or not.



### INDUSTRIAL AND AGRICULTURAL POSSIBILITIES OF WEST VIRGINIA.

Mr. Edward W. Parker of the United States Geological Survey, in a recent address delivered before the American Statistical Association on "The Coal Supplies and Coal Production of the United States," in the course of a reference to West Virginia emphasized the importance of developing the industrial interests of that State in order to make a home market for its coal. On this point he said:

No better illustration of the unwisdom of the failure to utilize raw products at home can be shown than that presented by the comparison of West Virginia's production with that of Illinois. The bituminous coal fields of West Virginia contain some of the highest grade steaming and coking coals in the United States. If not in the world, and yet the average price for this product in 1910 was less than \$1 per ton. The coals of Illinois on a strictly B. T. U. basis rank probably 20 per cent. lower than the average West Virginia coal, yet the average price for the Illinois product in 1910 was \$1.14 per ton, in comparison with 92 cents as the average price for West Virginia's production.

Few realize that 80 per cent. of the value of the mineral production of West Virginia is represented by its fuel output—coal, petroleum and natural gas. Yet fully 80 per cent. of all of these fuels, of inestimable value, is consumed outside the State. On the other hand, the production of Illinois is consumed principally in the manufacturing and transportation industries of that State or in immediately adjacent territory. West Virginia, which ranks second in coal production, stands 34th among the States in the value of its manufactured products. Some of its valuable timber is shipped to Grand Rapids, Mich., and the manufactured furniture shipped back into West Virginia. The transportation companies traversing West Virginia appear to be more interested in securing the heavy coal traffic from it than in building up manufacturing industries in the State. Most of the coal consumed within West Virginia is by the locomotives carrying coal to the support of manufactures in other States.

This is a rather strong arraignment of the industrial policy of the railroads and the people of West Virginia. It is, in part, justified, but probably not wholly so. The enormous coal wealth of West Virginia has made it possible for the capital and energy of that State to find employment in coal production more easily than in manufactures, and as all industrial operations generally start with the lowest form of output, rising gradually with increased wealth and development to the higher class of goods, so West Virginia has centered its interests to a very large extent on the mining of coal to be shipped outside of the State, or the production of oil and gas and lumber, all handled in the same way. The primary development work of the State has been in the thing that could most easily command capital and produce the quickest results, and that has been in the production of coal, lumber and petroleum to be consumed elsewhere. It is true that the railroads of West Virginia have to a large extent been remiss in not taking an active part in industrial development, just as stated by Mr. Parker, but the Baltimore & Ohio is setting the roads of that State an example which public sentiment should compel them to follow if their own officials are not wise enough to undertake it on their own initiative, and is now giving great attention to efforts to bring about a better industrial development as well as a more diversified and larger agricultural output. With a view to the development of the farming interests of West Virginia, with special reference to fruit-growing, close attention will be given to every phase of agriculture, and for this purpose the Baltimore & Ohio

has recently employed a distinguished expert whose long connection with the agricultural interests of the State through his professorship in the State University gives assurance that the State will from his work reap great profit as well as the railroad. The Baltimore & Ohio is likewise seeking to attract the attention of manufacturers of other sections to the vast stores of natural gas as a cheap fuel supply for manufacturing enterprises. Its officials realize that the broader the industrial and agricultural development of the State, the greater will be the benefits to the railroad. They are not content, as other railroads have been, according to Mr. Parker, to be more interested in merely handling the coal tonnage of the State than in building up manufacturing industries.

As one studies the vastness of the coal and oil and gas and timber and agricultural resources of that State, and knows that West Virginia is producing 60,000,000 tons of bituminous coal against 42,000,000 tons as the total output of the United States in 1880, he gets an idea as to what West Virginia can do in general industrial development. Even as late as 1894 the bituminous coal production of the United States was less than double the coal production of West Virginia at the present time. Now that its coal production has reached such magnitude, and its natural gas and oil have been so largely developed, the time has come when all of the forces interested in West Virginia's broadest progress should concentrate their energies upon the development of diversified manufactures based on the abundant supply of coal, oil, gas and timber and many other raw materials needed in manufacturing. These forces should likewise give attention to the very great advantages of that State for a broader agricultural advancement, for West Virginia presents unusual opportunities for fruit-growing, in which it can beat Oregon and Washington, for the raising of live-stock, where the richest blue grass springs spontaneously wherever the timber is cut away, and where the rich valleys afford a fertile soil for grain and wheat and other crops. It is to be hoped that Mr. Parker's criticisms of the transportation companies of the State will be taken seriously by those which have not yet followed the good example of the Baltimore & Ohio.

### BIG MUNICIPAL IMPROVEMENTS PLANNED.

Mayor McKay of Tampa, in a letter published elsewhere in this issue, in which he asks for information about paving blocks and asphalt, states that the proposed bond issue upon which Tampa will shortly vote will, if carried, provide \$750,000 for street paving, to which will be added an equal amount from abutting property-owners, making a total of \$1,500,000 for paving purposes.

In addition to the paving which the people of Tampa will have the opportunity of securing through a favorable vote on this bond issue, it is proposed to construct a sanitary sewerage system for the entire city, a city hall in keeping with the population and wealth of the place and municipally-owned docks, and at the same time provide a system of small parks.

Tampa is wise in undertaking these important improvements. That Tampa is to be a very important city, the center of large manufacturing, commercial and trading interests, cannot be ques-

tioned. What it has accomplished gives a hint of what the future will show. Improvements such as are here suggested are dependent for the time being upon a favorable vote on the bond issue. It can hardly be questioned, in view of the broad-mindedness of the people of that city and their civic pride, that they will not by an overwhelming vote decide in favor of the improvements which would add so greatly to the prosperity of every interest.

### STRONG FINANCIAL CENTERS NEEDED IN SOUTH.

A circular-letter recently issued by the banking-house of John L. Williams & Sons of Richmond, bearing on the proposed organization of the Richmond Trust & Savings Co., which is to have a capital of \$1,000,000, calls attention to the very remarkable increase in the financial development of that city. Recently, through a consolidation, one of the national banks of that city secured a capital of \$2,000,000, a larger capital than that of any national bank in Baltimore. For some years past Richmond has been taking a very prominent part in financial operations extending throughout the South, as well as in the maintenance and advancement of the mercantile and industrial interests of the city. In its work it is setting a good example to many others of the larger cities of the South.

The development of the financial interests of the South and the massing of Southern capital for the financing of its general business and industrial operations are equally as important as any other phase of Southern progress. This section has for the last forty years been paying a heavy toll to the North and West for their aid in financing its business, its railroads, and its construction work of all kinds. The MANUFACTURERS RECORD recognizes the need of outside capital in Southern development, but it knows that a well-rounded progress throughout the South will not be attained until the South becomes more independent financially through the development of strong financial centers. The financial growth of Richmond is in reality more important to the South as a whole than is its industrial growth. If Atlanta, for instance, should develop as a great financial center, having a commanding influence in financing the business interests of the central South, it would accomplish more for Southern upbuilding than if it doubled its manufacturing interests. Birmingham has very wisely boasted of its industrial advance, but the progress of the financial institutions of Birmingham, their increasing strength and the influence which they can exert for the business interests of all Alabama is equally as worthy of commanding public attention. The circular-letter of John L. Williams & Sons, to which reference has been made, calls attention to the remarkable prosperity which has attended the banks of Richmond, and, referring to the value of banking stocks in that city, says: "The average price of stocks of all banks in this city, State and national, at the present time is about \$325 per share on a par value of \$100." Such a valuation as this is a high tribute to the financial skill of the bankers of that city and to their energy in the development of business, and at the same time it is proof of the need of larger banking capital in order that the increasing opportunities for its use in Richmond and in the broad territory to which Richmond bankers look may be utilized. Richmond is set-

ting the pace in financial operation for other Southern cities.

### A DIVIDEND PAYER.

The Legg Brick Co. of Calhoun, Ga., in renewing its subscription to the MANUFACTURERS RECORD, says:

"In sending you this remittance we feel that of all the investments we make and expenditures, that this \$4 pays us the greatest dividend per dollar invested."

That is the feeling of a good many thousands of people throughout the South. A large proportion of them, like the Legg Brick Co., are subscribers. Some of them prefer to get the benefits that come from reading the MANUFACTURERS RECORD by borrowing copies from their friends or in other ways. We would like to add to our subscription list the names of all who read the MANUFACTURERS RECORD and who appreciate its work, but who are not on our subscription list. If this could be done its work in behalf of the South could be made still more effective.

### WHY ONE CITY GETS LEFT.

W. J. Miles, Jr., a manufacturer of Middletown, O., recently reported as contemplating building a plant in a leading city of the South, writes:

"Nothing doing at —, and from the present outlook my plant will be located elsewhere in the South or in Cincinnati, where people want factories instead of free advertising at the expense of others. I have received over 1000 letters from all parts of this country, Canada and Mexico wanting prices on castings, to sell machinery, wanting positions, etc. All of these came through the MANUFACTURERS RECORD."

### LAKE BORGNE CANAL.

More Than \$1,000,000 for Waterway Improvements, Cold-Storage Plant, Steel Towers, Shipyards, etc.

The new owners of the Lake Borgne Canal have decided upon an expenditure of more than \$1,000,000 for canal betterments in connection with their plans for barging coal from Alabama to New Orleans. The Alabama-New Orleans Transportation Co., New Orleans, wires the MANUFACTURERS RECORD confirming details of the improvements, which will be in charge of John Bernard, general manager of that company and of the holding corporation, the New Orleans Canal Co. The betterments will include the following: Constructing a storage plant with a capacity of 30,000 tons of coal; constructing a harbor on the north side of the canal for four 1000-ton coal barges, with sufficient space for turning; building three steel towers costing \$200,000, with the latest machinery for loading and unloading from barge to barge to storage plant and to railway cars; constructing tunnel 650 feet long under the storage plant, with machinery having an hourly capacity of 500 tons of coal for loading directly into the bunkers of vessels; building and equipping a modern machine shop driven by electrical power; establishing shipyards to extend 1200 feet from the storage plant; widening and deepening the waterway to provide a minimum width of 100 feet; erecting a two-story administration building on the canal, etc. Contract for the steel towers has been awarded to Fairbanks, Morse & Co. of Chicago, and the harbor contract will be awarded to a New Orleans firm. The Great Lakes Engineering Works of Detroit has already ordered to New Orleans materials for 15 of the 50 self-propelling coal barges for which it has contract, and will establish a plant for constructing these barges.

# Our Farm Products in International Trade.

Annual statistics of production and distribution, to have practical value, must be correlated with comparable statistics. A statement that a specified country has produced this year 100,000,000 bushels of wheat has in itself little meaning. The query naturally arises: Is this production unusually large, indicating a liberal

supply, or does it indicate a short supply, likely to cause a tendency toward higher prices? The mere statement of the year's production does not give sufficient information to answer the queries.

Furthermore, is the country in question an important factor either in the production or in the international trade in this product? Crop news, especially that which appears in the daily or weekly press, frequently contains bare facts relative to the indicated production of a specified country, without comparative data. Trad-

## Average Production of and International Trade in Important Agricultural Products.

Average Annual Production (Crop Years).

Product.	Five-year period.	"World."	United States.	Per cent. of "world" crop grown in United States.	Relative rank of United States in "world" production.
Corn (bushels).....	1905-1909	3,595,256,000	2,689,714,000	74.8	1
Wheat (bushels).....	1906-1910	3,381,349,000	670,184,000	19.8	1
Wheat flour (barrels).....	1906-1910	.....	.....	.....	.....
Wheat, including wheat flour (bushels).....	1906-1910	.....	.....	.....	.....
Oats (bushels).....	1906-1910	3,869,334,000	943,902,000	24.4	1
Barley (bushels).....	1906-1910	1,338,953,000	169,284,000	12.6	2
Rye (bushels).....	1906-1910	1,594,575,000	32,242,000	2.0	5
Potatoes (bushels).....	1905-1909	5,196,008,000	307,044,000	5.9	5
Cotton (bales 48 lbs. net).....	1905-1909	19,728,824	11,640,551	59.0	1
Cottonseed oil (gallons).....	1905-1909	.....	.....	.....	.....
Coffee (pounds).....	1905-1909	2,540,809,000	937,130,000	37.0	9
Flaxseed (bushels).....	1905-1909	98,675,000	25,045,000	25.4	2
Rice (pounds).....	1905-1909	114,065,759,000	531,989,000	0.5	10
Tobacco (pounds).....	1905-1909	2,423,569,000	757,483,000	31.3	1
Hops (pounds).....	1905-1910	183,527,000	47,457,000	25.9	1
Cane sugar (long tons).....	1905-7, 10-11	7,769,781	314,861	4.1	1
Beet sugar (long tons).....	1906-7, 10-11	6,852,689	425,989	6.2	4
All sugar (long tons).....	1905-7, 10-11	14,622,470	740,850	5.1	8
All sugar (long tons).....	1905-7, 10-11	14,622,470	91,435,150	9.8	4

\*Including Hawaii and Porto Rico.

Average Annual Exports (Calendar Years).

Product.	Five-year period.	"World."	United States.	Per cent. of "world" exports from United States.	Relative rank of United States in "world" exports.
Corn (bushels).....	1905-1909	234,201,012	76,419,857	32.6	2
Wheat (bushels).....	1906-1910	534,951,459	62,952,241	12.0	3
Wheat flour (barrels).....	1906-1910	24,626,625	12,134,365	49.3	1
Wheat, including wheat flour (bushels).....	1906-1910	645,771,273	118,556,884	18.4	2
Cotton (bales 48 lbs. net).....	1905-1909	12,695,345	8,416,562	66.3	1
Cottonseed oil (gallons).....	1905-1909	55,056,559	45,445,357	82.5	1
Coffee (pounds).....	1905-1909	2,690,181,988	33,151,873	1.2	10
Flaxseed (bushels).....	1905-1909	.....	.....	.....	.....
Rice (pounds).....	1905-1909	11,297,164,630	.....	.....	.....
Tobacco (pounds).....	1905-1909	757,727,907	329,815,134	42.3	1
Hops (pounds).....	1906-1910	62,004,995	15,384,083	24.8	3
Tea (pounds).....	1905-1909	717,140,720	.....	.....	.....
Olefin and olefin meal (pounds).....	1905-1909	4,958,353,449	1,839,605,364	37.1	1
Rosin (pounds).....	1905-1909	829,557,117	699,830,000	80.8	1
Turpentine (gallons).....	1905-1909	24,491,178	16,893,726	69.0	1
India rubber (pounds).....	1905-1909	210,767,845	.....	.....	.....
Wood pulp (pounds).....	1905-1909	3,445,648,110	25,967,425	0.7	8

Average Annual Imports (Calendar Years).

Product.	Five-year period.	"World."	United States.	Per cent. of "world" imports into United States.	Relative rank of United States in "world" imports.
Corn (bushels).....	1905-1909	235,805,097	.....	.....	.....
Wheat (bushels).....	1906-1910	517,049,746	.....	.....	.....
Wheat flour (barrels).....	1906-1910	23,183,680	.....	.....	.....
Wheat, including wheat flour (bushels).....	1906-1910	621,267,306	.....	.....	.....
Cotton (bales 48 lbs. net).....	1905-1909	12,097,820	173,058	1.4	..
Cottonseed oil (gallons).....	1905-1909	55,150,280	.....	.....	.....
Coffee (pounds).....	1905-1909	2,614,436,159	953,907,262	36.5	1
Flaxseed (bushels).....	1905-1909	.....	.....	.....	.....
Rice (pounds).....	1905-1909	9,858,190,474	193,062,718	2.0	14
Tobacco (pounds).....	1905-1909	725,573,413	38,217,922	5.3	8
Hops (pounds).....	1906-1910	62,171,380	7,002,759	11.3	3
All sugar (long tons).....	1906-1910	5,783,877	1,728,979	30.0	1
Tea (pounds).....	1905-1909	690,177,538	96,149,883	13.9	3
Olefin and olefin meal (pounds).....	1905-1909	5,162,305,043	.....	.....	.....
Rosin (pounds).....	1905-1909	814,802,072	.....	.....	.....
Turpentine (gallons).....	1905-1909	27,090,690	.....	.....	.....
India rubber (pounds).....	1905-1909	230,105,095	74,185,026	32.2	1
Wood pulp (pounds).....	1905-1909	3,435,401,668	51,192,522	1.5	3

## Rank of the United States in the Production of and International Trade in Specified Products.

Relative Rank of the United States Among the Various Countries of the World in Production, Exports and Imports, Based Upon the Average Statistics for a Late Five-Year Period.

Production.	Exports.	Imports.
Corn.....	1	1
Wheat.....	1	1
Oats.....	1	1
Cotton.....	1	1
Tobacco.....	1	1
Flaxseed.....	1	1
Cane sugar.....	2	2
Beet sugar.....	5	5
Potatoes.....	5	5
Rye.....	5	5
Coffee*.....	9	9
Rice.....	10	10

\*Porto Rico and Hawaii.

supply, or does it indicate a short supply, likely to cause a tendency toward higher prices? The mere statement of the year's production does not give sufficient information to answer the queries.

Furthermore, is the country in question

\*From a circular of the National Department of Agriculture by Royal T. McKenna.

ers who are constantly engaged in the business may be able to comprehend such information readily, but many readers, although interested in the subject, may not be similarly well informed nor have the necessary comparative data in hand. For the purpose of having in convenient form data of the average production of

and trade in certain crops in important countries the following tables have been prepared.

Late, and in most cases official, data have been used in every instance.

The figures of production in the United States relate only to Continental United States, except that those relating to coffee and sugar production include Porto Rico and Hawaii.

The expression "world's total production" of crops, used as in trade circles, includes only countries for which trustworthy data are available. Official data can be obtained from most Governments, but there are a few large countries for which the official data are incomplete, and some, such as China and Persia, for which official data of production are lacking.

In the figures of "world" crop production the crops of wheat and flaxseed harvested in the Southern Hemisphere from November to February of any year are coupled with those harvested in the Northern Hemisphere in the succeeding autumn.

Statistics of the exports and imports of products specified in this circular represent substantially the international trade of the world. It should not be expected that the totals of the world's exports and imports in the same year will agree. Among sources of disagreement are these: (1) Imports received in the year subsequent to year of export; (2) different periods of time covered in the year of the various countries; (3) lack of uniformity among different countries in the classification of goods; (4) different practices and varying degrees of failure in recording countries of origin and ultimate destination; (5) different practices of recording re-exported goods; (6) different methods of treating free ports.

The exports and imports of domestic produce, with a few exceptions, and the imports are imports for consumption as far as it is feasible and consistent so to express the facts. While there are some inevitable omissions, on the other hand there are some duplications because of reshipments that do not appear as such in official reports. For the United Kingdom import figures refer to imports for consumption, when available, otherwise total imports less exports of "foreign and colonial merchandise."

The exports and imports of the United States include Alaska, Porto Rico and Hawaii.

## MOTOR BOATS IN TRUCKING

### And Electric Handling of Millions of Barrels and Crates.

[Special Cor. Manufacturers Record.]

Oceana, Va., August 3.

To the careful, thoughtful observer and thinker the development in transportation means, methods, facilities, conveniences, etc., during the past 50 years has been truly remarkable, as applied to all portions of the United States, but in the Norfolk trucking section this development has been more than remarkable—more than ordinarily remarkable; indeed, it has been phenomenal. The trucking industry for the Norfolk section represents nearly \$8,000,000 gross sales annually, represented by between 4,000,000 and 5,000,000 packages, as they run, boxes, baskets, barrels and crates.

The industry is really less than 50 years of age, and several of the pioneers are still with us. Transportation of truck began when everybody was poor, right after the close of the Civil War, say between 1865-1870.

The primitive transportation on land was in carts, drawn in many instances by a patient ox; then the horse; then the mule; then the double wagon; then the single spring wagon; then the double

spring wagon; then the steam railway; then the electric railway; then the gasoline motor wagon.

On land the "toting of truck" has passed through all these stages of transportation; in fact, most of these methods are still used more or less. On the water the primitive boat was the "lighter" or flat boat, and the first motor was the tide; then came the sailing vessel; the steamboat; then the gasoline motor boat. A few years ago there were at least 5000 little sailing craft engaged in the oyster business in winter and in clamming, crabbing, fishing and "toting truck" from the farm wharves to Norfolk harbor. Now nearly every one of these little boats is equipped with a gasoline motor, so they can go and come at the will, pleasure or whim of the owner, without paying any attention to the sails, wind or tide.

The little gasoline motor boats carry from 150 to 500 packages each. They are in many cases owned by the truckers. In the early morning the berries are picked, or the potatoes dug, or any other crop gathered that may be ready for market, and the farm carts soon bring down the packages to the farm wharf, where they are put aboard the motor boat, and as soon as the day's picking is done, or as soon as may be advisable or desirable, the motor is started and in a short time is at the docks unloading.

The gasoline motor boat, from truck farm to the steamer docks in Norfolk harbor, constitutes the acme of water transportation of any agricultural product in America. There is nothing like it; nothing else; no other excels; in fact, none other equals it. When the farmer's truck crops reach the city wharves they must be transferred to the great steamers leaving daily for Boston, Providence, New York, Philadelphia, Baltimore and Washington. Some of these lines carry as much as 25,000 packages of truck at a single load, and in busy season from 6 to 10 steamers a week are required on a single one of the steamer lines.

The latest evolution in "toting truck" on the docks is the electric motor truck. All the motorman has to do is to "press the electric button" at his hand, "electricity does the rest," and the truck with a ton of potatoes or more glides across the big wharf as though it were alive, smoothly, easily, noiselessly, up the great gangplank into any part of the great steamer, where it is quickly relieved of its load and hurries back for more. There is no idling; no foolishness; no killing time with this motor. It is strictly business. In some ways it does the work of many men; for it would require men with hand trucks to move the barrels to the hold of the steamer. Ten of these little motor-electric trucks are in use on one of the wharves, and they go and come here and there rapidly, and apparently without any motor, as all the electric machinery is under the platform of the motor.

It requires good management, mental ability and muscle to move the mountains of truck in the short time allowed in which to handle it. For instance, the potato crop, the last of which is just now going to market, will easily weigh 100,000 tons. It, as a general rule, goes to market in about 30 shipping days, Sundays out. So that in that one crop alone more than 3000 tons must be handled daily; this in addition to all the other crops that may be moving at the same time, and also all the general freight that may be passing through the harbor requires a large number of workers and the best methods and machinery.

The Norfolk section has the men, the methods, the machinery, the mental ability and the money to properly manipulate matters.

A. JEFFERS.



## Business Improvement Everywhere in Evidence.

That there is a marked revival in business activity throughout the country cannot be questioned. It is seen on every hand. The production of iron is on a record-making basis, with the probability that this year's output will be between 20,000,000 and 30,000,000 tons, or the largest in any calendar year in our history. Prices have been advancing and iron concerns are beginning to make money. The demand for steel products is so great that the steel plants of the country are crowded to their capacity, and bonuses are being paid to secure prompt delivery.

In the cotton goods market improvement is in evidence, and this industry is in better shape than for several years, both as to the volume of the demand for cotton goods and the margin of profit to the mills. In fact, for two or three years the balance-sheet of most mills was on the wrong side, but now many mills are making fair earnings and are in very much better shape financially and as to the demand for their output.

After some years of depression and unprofitable business the lumber industry is picking up, and, like cotton and iron, it, too, begins to show a much greater demand and a much better financial condition.

The railroads of the country are realizing that traffic is growing faster than their facilities. Here and there are signs of shortage of cars, with a possibility of congestion of traffic even before crops begin to move freely. With a view to meeting this situation and preparing for the future, railroads are ordering heavily of locomotives and cars, and the indications are that the rolling stock builders will have a larger volume of business during the coming 12 months than they have had for four or five years. Already locomotive plants and car-building works are becoming crowded. Railroads are likewise ordering steel rails for next year's delivery more freely than for several years, realizing the necessity of improving their roadbed and of being prepared to meet the demand for extensions and betterments.

At many points there is already a shortage of labor, and the big manufacturing centers are eagerly hunting for more men.

Back of all of these conditions and a sure foundation for greater activity is the assurance of great crops this year. Indications now point to the largest grain yield the country has ever had, making certain that the grain-carrying roads will be taxed to their utmost capacity. Prospects indicate a fairly good cotton crop, and if the yield be not as much as the phenomenal crop of last year, advancing prices will make its value probably in excess of last year's returns to the cotton growers.

Throughout a large part of the country, and especially in the South, fruit has yielded abundantly. One little section in Georgia has shipped nearly 4000 carloads of peaches; Florida expects to market between 8,000,000 and 9,000,000 boxes of citrus fruit, or double the crop of last year; one county in Virginia will probably produce 1,000,000 barrels of apples, while other counties in that and other Southern States will yield in proportion.

It is quite possible that this year's farm products will be worth \$9,000,000,000; indeed, one estimate has been made placing the amount at \$10,000,000,000, though that is doubtless too high.

Under such conditions, despite political agitation, despite the dire predictions of the ins and outs as to what may happen to business if this or that happens in the

political game, 93,000,000 people, less the politicians, are at work producing and consuming things of more importance than the machinations of the political workers. We would not underrate the importance of wise economic policy in governmental affairs; we would not underrate the advantages or the disadvantages of this or that party or this or that legislation, but fundamentally the business interests of the country are good and on a sound basis. Nature is giving us a great harvest which promises to produce by far the largest value ever gathered in any one year by the farmers of the land. An increasing demand for iron and steel and cotton and lumber and other manufactured products is once more reviving hope among those who for the last three or four years have had to make an uphill fight in business following the panic and depression of 1907. The outlook is cheering. Every man now has an opportunity to do business. The wise man will be up and at it. Following are some views from several angles:

### New Era of Prosperity.

[Wall Street Journal.]

Conditions of business at this season of the year are passing through the interim between the end of one commercial period and the beginning of another. During this interval of waiting and indifference several things are becoming clearer to the mind of the millions of people of the United States—things which it is well worth while recounting, so that in looking forward to the future one may not be misled by an underestimation of the past. They are:

1. Foreign commerce of the United States in manufactures alone for the fiscal year ending June 30 rounded out 1,000,000,000 in value. Somebody must have been doing much to accomplish such a result in the course of a single fiscal year. Our farms, our factories and our forests have not been oppressed with the silence of depression, but with the stimulus of prosperity. We have sold an enormous bill of goods to the foreign world and got as good as cash for every bit of it.

2. During all this period we have been supplying a home market in which the value of exchanges, counting one turn for each commodity for the same form is safely estimated at a volume of trade amounting to \$33,000,000,000. That is about equal to the foreign commerce of the entire world's trading nations. The envy of every great industrial nation is the United States market, and the reason for it is self-evident. By far the greater proportion of our last year's productions of agriculture, amounting to about \$8,000,000,000, and of manufactures, amounting to \$20,000,000,000, are sold right at home; so that the people who produce them sell to their neighbors and fellow-citizens.

3. Wages have been advanced in hundreds of lines of industry, and prices have been at a more profitable rate for many of our most important manufactures. That is especially so of cotton goods and other staple commodities. Since the panic of 1907 the country has pulled itself out of the slough of despond and is doing business on about as big a scale as ever. Our total foreign commerce is practically \$4,000,000,000, or four times as large as in 1870. In that year we grew 1,000,000,000 bushels of corn, but now we grow about three times as much. Our 250,000 miles of railroad are beginning to feel the weight of the size of the big grain crops they will

have to haul within the next several months, to say nothing about the 60,000,000 head of livestock that the Western States will drive up to the way stations and ship off to the packing centers.

4. From present prospects the current calendar year will be the best one in the number of railway freight cars ordered since 1906. Estimates put the year's requirement at 225,000 cars, or about one new car for every mile of railroad in the country. Besides this travel is increasing, numerous interurban electric lines are being pushed, and the out-of-the-way places of the country are being coupled up with the commercial centers by better means of marketing and communication. Western buyers at the big trade centers are already coming to lay in their stock of Christmas goods. These things would seem to mean that the country is going forward, without waiting for politics or anything else, to a new era of general prosperity.

### Lumber Market Strong.

[Orange (Tex.) Leader.]

Information gathered from every lumber trade center shows the market strong, and in many cases still advancing. The retail dealers in the interior markets are placing orders just as fast as they can make contracts with the mills, and the orders are for immediate shipment. There is very little change in the conditions which have existed, controlling the market for the past few months. Good prices and a firm market are still the foundation for the optimistic feeling of the mill men.

It is recognized by the far-seeing lumberman that favorable market conditions are contingent upon a firm foundation—a foundation which can come only from the stability of old mother earth—the crops. This very cornerstone upon which all industries rest is stretching forth the mightiest hand toward successful uplifting from the business stagnation of the past few years that has ever been experienced in our history.

These market conditions are applicable only to the demand for interior or domestic lumber; the export business increases to all foreign markets, sustaining to the very highest level prices and demand for the American cut lumber.

The prospects grow better as each controlling condition is analyzed, all pointing to bigger business, bigger prices and better profits.

### Not Disturbed by Politics.

In its monthly circular to its customers the Fourth National Bank of New York, of which James G. Cannon is the head, says:

"This bank has secured the views of a number of representative business men, the aim being to obtain unbiased opinions regarding what is actually going on at the large trade centers.

"This canvass covered the greater part of the United States. It took in most of the important manufacturing and retail centers, and the inquiries specifically asked how general business conditions today compare with those existing at the same time last year, to what extent the Presidential campaign is likely to unsettle general trade, and what is the strongest factor in the business and financial outlook.

"The replies show that business is much better today than it was last year. The gains noted range from 10 to 20 per cent. or more, and the people are much more optimistic now than they were last year, when labor was only partially employed and when the preliminary struggle for the Presidential nominations was before the country.

"One merchant in Cleveland describes conditions as 'infinitely ahead of last

year.' From one of the greatest dry goods concerns in the West comes the assurance that its customers, with very few exceptions, report generally improved conditions. From St. Paul there is assurance that the business outlook was never more encouraging and that the situation has vastly improved. In Salt Lake City the outlook is said to be much better because of the bountiful crops and the higher prices obtained for lead and copper.

"To sum up, the feeling is that business is not going to be disturbed by politics, nor, if the crops turn out well, is it going to be held back by the usual vicissitudes of a Presidential campaign. Mercantile interests generally are in a sound condition, and because of the thorough-going liquidation that has taken place in all lines there are today very few weak spots."

### Big Crops; Fine Business.

[New York Journal of Commerce.]

The year 1912 is to be an exceptionally favorable one so far as the grain harvests are concerned. The Northwest expects the largest general crop ever raised. Business conditions and prospects throughout the West, as well as the Northwest and Southwest, are excellent. Politics are, as a rule, being ignored, and, at any rate, are not being permitted to interfere with business expansion.

The *Journal of Commerce and Commercial Bulletin* wired a large number of bank presidents in the principal grain States of the West asking their views on the condition of the crops, business and politics. Their replies were prompt, most interesting and encouraging. A careful digest of their reports, which are printed in full below, suggests these conclusions:

The crop promise is excellent, taken as a whole. In the soft winter wheat sections—in South Indiana, Illinois and Ohio—wheat has clearly shown the effects of the damage by the severe winter and the generally poor early conditions. But there have been ample offsets in other sections, and the wheat crop as a whole will be larger. Kansas promises the largest wheat crop ever grown and of exceptionally fine quality. The spring wheat harvest will be exceptionally large. The yield of oats promises to be a record-maker. Many bankers are predicting the largest crops in the Northwest on record.

The business outlook is reported, almost without exception, to be good, and it will be observed that in many localities the disposition is to take a highly optimistic view of the future.

Politics are being ignored. The preliminary campaign before and at the conventions seems to have had the effect of airing business interests. Mr. George M. Reynolds, president of the Continental and Commercial Bank of Chicago, seems to accurately reflect the general situation in his telegram. He says: "The consensus of opinion is that politics will have less effect upon business than in any Presidential year in recent times."

### A \$750,000 COMPANY.

#### To Manufacture Block Tinplate.

The Wheeling Sheet & Tinplate Co., Wheeling, W. Va., has been organized with \$750,000 capital stock to build a 10-mill plant for manufacturing block tinplate and in future to add 10 mills. Its officers are: President, J. J. Holloway; vice-president, Edw. Hazlett; secretary-treasurer, F. W. Henderson. They are also interested in the La Belle Iron Works.

In the past fiscal year more than 22,000,000 tons of coal were shipped over the Norfolk & Western Railway, according to the *Coal Trade Journal*, an increase of 4,351,905 tons over the preceding year.

## Southern Protest Against a Menace to Civilization.

John H. Kirby, president of the Kirby Lumber Co., and active in every movement for the material welfare of Houston, Tex., is a man of courage, the kind of courage which is being drafted more and more into the service of the country. He showed his courage in a speech last month in Texas, addressed primarily to the many employees of his company. During the past two or three years the lumber mill men in the Southwest have been hampered in the operations by an organization calling itself the "Timber Workers' Union." The activities of this organization have recently been reinforced, with a revolutionary program, by the "Industrial Workers of the World," which sets itself against all of the modern tendencies of civilization toward the settlement of differences between employers and employees, and which, judged by its manifestations in the coal regions of Idaho and the cotton-mill districts of Massachusetts, will soon spell anarchy of the most pronounced and savage sort unless it be suppressed.

One of its main reliances is what is known as "sabotage." This word originated during a strike in a foreign country in which, as the workers left the plant, some of them threw their sabots, or wooden shoes, into the delicate machinery, putting the latter out of commission. Sabotage in practice ranges from the worker's soldiering on his job, in other words, robbing his employer in time wasted, or dropping emery into the bearings of delicate machinery, to shutting down the pumping machinery of a mine during a coal strike, thus permitting the mine to be flooded with water, or blowing up property of employers with dynamite. Industrial Workmanship of the World is therefore a menace to civilization. Mr. Kirby boldly paid his respects to the system when he said:

"While my whole life's record sustains the fact that my sympathies are not only with the laboring masses, but that they extend also to that class of laborers which constitute what we know as legitimate labor organizations, it is also true that I have no sympathy with a certain lawless aggregation which proclaims itself as the champion of some of the laboring men. This organization is known as the I. W. W. Its members claim that this stands for the Industrial Workers of the World. Others who are well informed claim that it stands for 'I Won't Work.' I call this a lawless organization because they teach and preach the following things:

"a. That workmen are to use any and all tactics that will get the results sought with the least possible expenditure of time and energy.

"b. The question of right or wrong is not to be considered.

"c. The avenging sword is to be unsheathed, with all hearts resolved on victory or death.

"d. The workman is to help himself when the proper time comes.

"e. No agreement with an employer of labor is to be considered by the worker as sacred or inviolable.

"f. The worker is to produce inferior goods and kill time in getting tools repaired and in attending to repair work; all by silent understanding.

"g. The worker is to look forward to the day when he will confiscate the factories and drive out the owners.

"h. The worker is to get ready to cause national industrial paralysis with the view of confiscating all industries, meanwhile taking forcible possession of all things that he may need.

"i. Strikers are to disobey and treat with contempt all judicial injunctions."

"Their contentions are so rank that even the socialists in their national meeting at Indianapolis a few weeks ago had to cut off all relations with them.

"We never ask a man in our employ nor one who applies to us for work whether he is a Methodist, Baptist, Presbyterian or Catholic, nor whether he is an atheist, a Jew or a Christian, nor whether he is a Democrat or a Republican, nor whether he is a Mason, Odd Fellow, Knights of Pythias, Woodman, Elk or Hoo-Hoo, nor whether he is or ever has been a member of a labor organization or in sympathy with organized labor, but we do ask whether he is a B. T. W. or an I. W. W. If he is, we have nothing he can do. We recognize his right to join this organization if that is his wish, but we claim for ourselves the equal right to protect those in our employ and to guard the industry in which they are engaged. The man who puts force above the Golden Rule, dynamite above the law, and murder above the Christian religion has nothing in common with us, has nothing in common with the law-abiding communities in which our business is conducted, and we do not propose to inflict upon these communities and these people, who have a right to expect us to conduct our affairs in an orderly, law-abiding and civilized way under the tenets of the Golden Rule, any man or set of men who subscribe to the preachings and teachings of the I. W. W. We will close down our mills and retire from activity before we will destroy the peace, safety, order and tranquillity of the communities in which we do business and before we will expose our loyal and law-abiding men to personal violence and death."

In justification of his right to use such language against the menace to employees as well as to employers, and in refutation of charges made by the agitators that he has profited at the expense of his employees and that he has been a hard taskmaster, Mr. Kirby said:

"What are the facts? In 11 years, with the bulk of my fortune invested in this enterprise, I have not had a dividend. In the past five years the company has not made a five-cent piece in net earnings. By that I mean that every dollar we have received from the sale of the product of our mills, every dollar we could earn in the tie and piling department, every dollar we could earn in the mercantile department, every dollar received from rents or from any other source, was required to meet the payroll and to pay for the raw material, the pine trees, which we are daily consuming and which we do not own.

"It was three years ago last Monday that the receivers, who had held and operated our properties for the previous five years and four months, relinquished their control and restored the property to my management as president of the corporation. During those five years, when I was a lumberman out of a job, I gave active attention to other matters and made some judicious investments in the city of Houston and in timber properties in East Texas wherever I could induce sellers to take my note for such purchases, and which investments turned out to be very profitable. But for this the receivers might have continued until this day or else our properties would have been sold out by the United States marshal under the hammer and somebody else would have

today been undertaking to operate these plants. My business ventures during these five years were so successful that I was able to sell the properties that I had accumulated and turn the money over to the Kirby Lumber Co. and take it back into my own hands, turning over to you its management and its destiny. As said before, that was three years ago last Monday, and in all that period we have not earned a cent. Our fiscal year is from July to July, that is, our books are written on that basis. During the first two years we broke even in our operations, but then there came an effort on the part of outside loafers to take charge of the management of our plants, and the effort to do so had its resultant confusion and depression, so that from July 1 of last year until May 31 of this year, covering a period of 11 months, instead of earning a dollar we lost exactly \$262,686.88. During that period of 11 months we cut up 192,000,000 feet of lumber, log scale. We paid for it, as was our contract obligation to do, at \$5 per 1000 feet, log scale. We could have sold it in the market without operating a mill as standing timber for \$5 per 1000 feet or more, but I did not choose to do that. I operated these mills during every hour that I could, and found such market as I could for the lumber you produced because I had faith that the conditions under which we were struggling would improve, and that we would ultimately reach the point where we could go forward without embarrassment or loss. In this 11 months we have reduced the lives of these mills to the extent of sacrificing 192,000,000 feet of our raw material, and instead of earning a penny for the stockholders we have injured them to the extent of \$262,686.88 and more.

"During that 11-months' period we made and sold lumber of the value of \$5,031,198.97. We made and sold hemlock and piling of the value of \$661,150.98. Our total business for that 11-months' period, therefore, reached the enormous aggregate of \$5,692,349.95, every penny of which and \$262,686.88 additional was paid to the men who run this business and toil about our plants and in the woods and in the tie camps and on tie trains, and to the people who own the logs and the tie timber which we consume. Not a dollar went to anybody else. And yet, in the face of this truth, there are those bawling persons who go about the country proclaiming that I, as your employer, take of your earnings 83 per cent. and permit you to have only a measly 17 per cent. of what you create, while the fact is that you not only in this 11 months got every dollar that the product of your labor sold for, but you got \$262,686.88 besides.

"This is an accurate statement of our past year. I have not yet received the figures for our operations in June, but I think they will show an improvement over anything in the past 11 months. The market for our product is some better than it was, and the failure of the effort of imported loafers from other States to disturb our boys who toil in our mills and camps has been influential in restoring normal conditions about our plants, and it is my hope that the future may bring us some measure of success. Every man within the sound of my voice knows that I am not paying the wage scale I would be pleased to pay, and they also know that I am paying every cent the business will stand. There is no man in our employ who hasn't intelligence enough to know this, and I say to you now, as I have said to you frequently heretofore, that when the time comes that there is a restoration of prosperity in this country, and this enterprise which you are conducting shares in that prosperity to the

extent of making earnings, those who toil about these mills and aid in producing those earnings will have consideration before the stockholders, even after their long wait, receive a cent.

"In refutation of the charge that I am a hard taskmaster and am skinning you out of the proceeds of your toil, I call to your attention that during all of my business life substantially every dollar I could earn and save was employed in giving some other man a chance. Some of you boys have been with me as long as 20 years, and you know that it has always been my ambition to make opportunities for others, and you also know that I have never received one penny of profit from the toil of any man I employed. In the old days of the Texas Pine Land Association no dividends were paid. In the days of the G. B. & K. C. Railway no dividends were paid. In the 11 years of the Kirby Lumber Co. no dividends have been paid. These three have been my leading industrial enterprises, though I have had investments in many others, but when a man tells you that I have ever received a dollar of profit from the employment which I gave to another man, let him all you've got on the proposition, and be sure that the record will enable you to win. I have made my fortune by judicious investments in real estate, with some aid from the construction of the G. B. & K. C. Railroad, which profit arose in the sale of the road, and not in its operation, and no man can point to a penny that I have ever received otherwise. I hope there is coming a change and that the large fortune I have invested in the shares of this company will some day yield me substantial returns. If I did not think so, it would be my duty to the other stockholders of this company to permit the company to be now dissolved and whatever we own distributed to those whose right it is to receive it.

"They say I have no sympathy with the laboring man, and that I am opposed to labor organizations. My whole life has been a daily refutation to these charges. My sympathy and interest have always been with the laboring masses. My kin-people and close friends, as well as myself, are working folks and have never known anything else but to toil. I am the only one of my family who was ever classed as a rich man, but the property I have accumulated has not made me an idler nor has it made me selfish or ungenerous. I spend more of my earnings to aid widows and orphans and for the education of ambitious boys and girls, the building of schoolhouses and churches and for the promotion of charities than I spend upon my family or upon myself. My misfortune has been for the past 11 years that since my investments were earning nothing I have had little that I could give in aid of others, and by little I mean that my donations have probably not exceeded an average of \$25,000 a year in the past 10 years."

### For Fruit Preserving.

Secretary and Manager Charles W. Mason, of the Haywood Fruit Exchange of Waynesville, N. C., reports to the MANUFACTURERS RECORD that a number of the fruit growers in his section are considering the establishment of plants to use the by-products of the orchards in evaporated and canning and in making cider, jelly, vinegar and apple butter.

The Central of Georgia Railway has begun at its making shops classes of instruction for all apprentices in the car department, machine shops, boiler works, etc., for the purpose of enabling them to increase their individual efficiency.



# Hints as to Diversification in Southern Agriculture.

Of 104,050,788 acres of land in the South planted in 1909 in 10 leading crops, 32,042,669 acres were planted in cotton and 585,751 in sweet potatoes and yams. The latter crop yielded to the farmer \$31,819,216, or an average of \$54.32 an acre, and the former crop brought to the planter \$703,591,721, or an average of \$21.95 an acre. The cotton acreage was nearly sixty times as great as the acreage in sweet potatoes, but the returns from cotton were only about thirty-three times as great as those from sweet potatoes. With an acreage equal to that devoted to cotton the sweet potato crop of the South would have yielded \$1,640,557,780, if such a crop could have been marketed at the current prices. The enormous figure is cited to emphasize the difference in acre value between production of cotton and production of sweet potatoes.

The value of cotton, with its seed, constitutes about 30 per cent. of the value of the total agricultural production of the South. This comparison of the acre potentialities of cotton and sweet potatoes suggests the opportunities in diversification in Southern agriculture, which is emphasized in the accompanying tables, condensed in the following table, showing for the whole South production per acre by quantities and values of 10 leading crops:

Product.	Acreage.	Quantity.	Per acre.	Value per acre.
Cotton.....	32,042,669	10,649,119 bales	0.3	\$21.95
Corn.....	44,552,517	809,656,165 bus.	18.2	12.30
Hay, etc.....	12,167,922	12,854,363 tons	1.1	10.68
Wheat.....	7,018,588	87,315,174 bus.	12.4	12.83
Oats.....	4,585,227	84,856,644 bus.	18.5	9.35
Tobacco.....	1,055,050	807,991,221 lbs.	765.8	75.05
Peanuts.....	869,281	19,403,356 bus.	22.3	21.00
Rice.....	610,163	21,838,520 bus.	35.8	26.25
Sweet potatoes.....	585,751	52,370,149 bus.	89.4	54.32
Irish potatoes.....	563,620	46,248,727 bus.	82.1	52.32

Bearing in mind that these figures are as of 1909, the latest from which such details may be derived, and also that seasonal conditions may account for marked differences in the several crops among the different States, some general thoughts of value may be evolved.

The value per acre of lint cotton produced was exceeded by the value per acre of tobacco, sweet potatoes, Irish potatoes and rice. But of the crops common to the whole country not one in the South had an average acre production equal to the average acre production for the whole country.

Maryland and Missouri each averaged more corn per acre than the average for the country, 25.9 bushels, and, if the average for the South had been equal to the Maryland average, 27.7 bushels, the Southern crop would have been 1,234,104,721 bushels instead of 809,656,165 bushels.

Maryland averaged more wheat per acre than the average for the country, 15.4 bushels. If the average for the South had been equal to Maryland's, 16 bushels, the Southern crop would have been 112,296,468 bushels instead of 87,315,174 bushels. No State in the South had an average acre production of oats equal to the average of the whole country, 28.7 bushels. But had the South's average been equal to that of Oklahoma, 27.3 bushels, its oat crop would have been 125,176,697 bushels instead of 84,856,644 bushels.

The South is the especial home of the sweet potato, but in 1909 it raised only 6,121,422 more bushels of sweet potatoes than of Irish potatoes. No State in the South raised an average per acre of Irish potatoes equal to the average of the country, 106 bushels, but Virginia raised an average of 100.9 bushels and Florida an

average of 100.7 bushels. If the South's average had equaled Virginia's the crop would have amounted to 56,869,258 bushels instead of 46,248,727 bushels.

Because of the long grazing seasons and of a halting in livestock raising, the South has paid comparatively slight attention to hay and other forage crops. In 1909 it raised but 13.2 per cent. of the total hay and forage crop of the country, or 12,854,363 tons of the total 97,147,446 tons. The average acre production for the country was 1.35 tons. One Southern State, Louisiana, had a greater average, 1.36 tons. Had that been equaled by the South the Southern crop would have been 16,548,374 tons.

What Maryland and Missouri have done in corn, Maryland in wheat, Oklahoma in oats, Virginia and Florida in potatoes and Louisiana in hay and forage can be done by other Southern States, some being better equipped as to soil and general climatic conditions than others for particular crops. In this connection it is interesting to note the large part played by a few States in the Southern totals of production of the 10 crops under consideration.

Texas in 1909 harvested 30.9 of the total acreage of the South in cotton and produced 23 per cent. of the total crop.

States.	Acreage.	Quantity.	Per acre.	Value per acre.
Alabama.....	2,572,968	10,649,119 bales	0.3	\$21.95
Arkansas.....	2,277,116	809,656,165 bus.	18.2	12.30
District of Columbia.....	426	12,854,363 tons	1.1	10.68
Florida.....	905,771	87,315,174 bus.	12.4	12.83
Georgia.....	3,383,061	84,856,644 bus.	18.5	9.35
Kentucky.....	3,436,340	807,991,221 lbs.	765.8	75.05
Louisiana.....	1,590,830	19,403,356 bus.	22.3	21.00
Maryland.....	647,012	21,838,520 bus.	35.8	26.25
Mississippi.....	2,172,612	52,370,149 bus.	89.4	54.32
Missouri.....	7,113,953	46,248,727 bus.	82.1	52.32
North Carolina.....	2,459,457			
Oklahoma.....	5,914,069			
South Carolina.....	1,565,832			
Tennessee.....	3,146,348			
Texas.....	5,130,052			
Virginia.....	1,860,359			
West Virginia.....	676,311			
Total.....	44,552,517			

Missouri, Oklahoma and Texas harvested 40.7 per cent. of the acreage in corn and produced 44.6 per cent. of the crop.

Missouri and Oklahoma harvested 45.4 per cent. of the wheat acreage and produced 50.2 per cent. of the crop.

Missouri, Oklahoma and Texas from 46.3 per cent. of the acreage produced 57 per cent. of the oat crop.

Kentucky, North Carolina and Virginia from 83.1 per cent. of the acreage harvested 82.7 per cent. of the tobacco crop.

Missouri alone harvested 31.9 per cent. of the hay crop from 29.8 per cent. of the acreage.

Georgia, North Carolina and Virginia from 57.5 per cent. of the acreage harvested 66.1 per cent. of the peanut crop.

Louisiana and Texas had 90.9 per cent. of the acreage in rice and harvested 90.8 per cent. of the total crop.

Kentucky, Missouri and Virginia harvested 46.9 per cent. of the Irish potato crop from 42.4 per cent. of the acreage.

Five States, Alabama, Georgia, Louisiana, Mississippi and North Carolina harvested 56.9 per cent. of the crop of sweet potatoes and yams from 59.4 per cent. of the acreage. The case of sweet potatoes, which were grown in every Southern State, is a good illustration of the variation in crops and of the opportunities in diversification. Maryland had but 7956 acres in sweet potatoes, but raised an average of 133.9 bushels to the acre, leading the South in that respect. Virginia, which ranked second in average, 129.1 bushels, had only 40,838 acres in sweet potatoes, while South Carolina harvested but 74.6 bushels per acre from 48,878 acres, and Louisiana but 84.8 bushels per acre from 56,953 acres.

Persistent preaching of diversified farming has had some effect, and the ravages of the boll-weevil have been an active agency in turning the Southern agricultural mind to other crops than cotton. But the practical application of the doctrine of diversification under the enlightened leadership of State experiment stations has been far more effective not only in bringing about greater diversification, but also in demonstrating the advantage of raising more of cotton than of other crops to the acre.

Of 384,117,000 acres of Southern farm

land, only 173,982,000 acres, less than half, were under cultivation in 1910. If every acre of farm land was under cultivation and producing crops equal to the highest acre production among the Southern States, the value of Southern agricultural products would be more than double the present \$3,000,000,000.

Potentialities of Southern agriculture revealed even in the figures cited for one year ought to show the natural equipment of the South for feeding the country.

The details of production of the ten crops in 1909 by separate States follow:

## Cotton.

States.	Acreage.	Production.		Value per acre.
		Bales.	Per acre.	
Alabama.....	3,730,482	1,129,527	0.30	\$19.89
Arkansas.....	2,153,222	776,879	0.36	25.34
Florida.....	263,454	65,056	0.25	18.38
Georgia.....	4,883,304	1,962,408	0.41	25.94
Kentucky.....	7,811	3,469	0.45	28.55
Louisiana.....	957,011	268,909	0.28	18.10
Maryland.....	.....	186	...	....
Mississippi.....	3,400,210	1,127,156	0.33	25.45
Missouri.....	96,527	54,498	0.56	35.14
North Carolina.....	1,274,404	665,132	0.52	33.01
Oklahoma.....	1,976,935	555,742	0.28	17.91
South Carolina.....	2,556,467	1,279,866	0.50	31.43
Tennessee.....	787,516	264,562	0.34	22.81
Texas.....	9,930,179	2,455,174	0.25	16.39
Virginia.....	25,147	10,480	0.42	27.67
West Virginia.....	.....	75	...	....
Total.....	32,042,669	10,649,119	0.33	\$21.95

## Corn.

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	2,572,968	30,695,737	11.9	\$11 15
Arkansas.....	2,277,116	37,600,544	14.8	12 26
District of Columbia.....	426	12,667	29.7	22 61
Florida.....	905,771	7,923,767	11.6	9 42
Georgia.....	3,383,061	39,374,569	11.6	10 96
Kentucky.....	3,436,340	83,348,024	24.3	14 68
Louisiana.....	1,590,830	26,010,361	16.4	10 36
Maryland.....	647,012	17,911,436	27.7	17 02
Mississippi.....	2,172,612	28,428,667	13.1	11 98
Missouri.....	7,113,953	191,427,087	26.9	15 09
North Carolina.....	2,459,457	34,063,531	13.8	12 72
Oklahoma.....	5,914,069	94,283,407	15.9	8 13
South Carolina.....	1,565,832	20,871,946	13.3	13 21
Tennessee.....	3,146,348	67,682,489	21.5	14 56
Texas.....	5,130,052	75,498,695	14.7	9 86
Virginia.....	1,860,359	38,295,141	20.6	15 53
West Virginia.....	676,311	17,119,097	25.3	17 61
Total.....	44,552,517	809,656,165	18.2	\$12 30

## Hay and Forage.

States.	Acreage.	Production.		Value per acre.
		Tons.	Per acre.	
Alabama.....	238,656	251,403	1.05	\$14.07
Arkansas.....	435,915	461,817	1.06	11.21
District of Columbia.....	962	2,148	2.23	26.63
Florida.....	54,729	55,300	1.01	15.49
Georgia.....	253,157	261,333	1.03	16.03
Kentucky.....	966,377	957,241	0.99	10.66
Louisiana.....	180,811	245,815	1.36	13.46
Maryland.....	398,842	477,564	1.20	15.07
Mississippi.....	229,705	279,236	1.22	14.64
Missouri.....	3,628,348	4,091,342	1.13	9.33
North Carolina.....	375,795	369,332	0.98	12.72
Oklahoma.....	1,347,308	1,417,533	1.05	7.15
South Carolina.....	209,767	186,131	0.89	15.20
Tennessee.....	1,052,816	1,077,836	1.02	11.98
Texas.....	1,311,967	1,257,845	0.96	9.77
Virginia.....	773,577	823,383	1.06	13.26
West Virginia.....	708,900	639,104	0.90	10.57
Total.....	12,167,922	12,854,363	1.05	\$10.68

## Rice.

States.	Acreage.	—Production.—		Value per acre.
		Bushels.	Per acre.	
Alabama.....	279	5,170	18.5	\$18.56
Arkansas.....	27,419	1,282,830	46.8	42.24
Florida.....	623	12,341	19.8	24.54
Georgia.....	6,445	148,698	23.0	22.62
Louisiana.....	317,518	10,839,973	34.1	25.36
Mississippi.....	281	4,836	17.2	18.89
North Carolina.....	521	11,357	21.7	19.71
South Carolina.....	19,491	541,570	27.8	26.71
Texas.....	237,586	8,991,745	37.8	25.70
Total.....	610,163	21,838,520	35.8	\$26.25

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	257,276	3,251,146	12.6	\$8 23
Arkansas.....	197,449	3,212,891	16.3	8 31
District of Columbia.....	13	375	27.3	12 69
Florida.....	43,206	606,380	14.0	10 26
Georgia.....	411,064	6,199,243	15.1	10 29
Kentucky.....	174,315	2,406,064	13.8	6 98
Louisiana.....	29,711	420,033	14.1	8 43
Maryland.....	49,210	1,160,063	23.6	11 88
Mississippi.....	97,085	1,268,785	13.1	8 48
Missouri.....	1,073,325	24,828,501	23.1	9 55
North Carolina.....	228,120	2,782,508	12.2	7 63
Oklahoma.....	609,373	16,006,154	27.3	11 77
South Carolina.....	324,180	5,745,291	17.7	11 75
Tennessee.....	342,086	4,720,692	13.8	6 95
Texas.....	440,001	7,034,617	16.0	8 41
Virginia.....	204,455	2,884,495	14.1	7 87
West Virginia.....	103,758	1,728,806	16.7	8 79
Total.....	4,585,227	84,856,644	18.5	\$9 35

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	13,665	113,953	8.3	\$8 81
Arkansas.....	60,426	526,414	8.7	8 82
Florida.....	10	137	13.7	13 20
Georgia.....	93,065	752,858	8.1	9 36
Kentucky.....	681,323	8,739,260	12.8	12 93
Louisiana.....	65	488	7.5	7 81
Maryland.....	589,893	9,463,457	16.0	16 74
Mississippi.....	394	4,670	11.8	11 04
Missouri.....	2,017,128	29,837,429	14.8	14 84
North Carolina.....	501,912	3,827,145	7.6	8 81
Oklahoma.....	1,169,429	14,008,334	12.0	11 85
South Carolina.....	43,028	310,614	7.2	8 97
Tennessee.....	619,861	6,516,539	10.5	11 15
Texas.....	326,176	2,560,891	7.9	8 86
Virginia.....	692,907	8,076,989	11.7	12 67
West Virginia.....	209,315	2,575,996	12.3	12 89
Total.....	7,018,588	87,315,174	12.4	\$12 83

States.	Acreage.	Production.		Value per acre.
		Pounds.	Per acre.	
Alabama.....	211	90,572	429.0	\$70 58
Arkansas.....	758	316,418	417.4	53 41
Florida.....	3,987	3,505,891	879.3	257 20
Georgia.....	2,025	1,485,904	733.8	146 74
Kentucky.....	469,795	398,482,301	848.2	84 86
Louisiana.....	519	172,418	332.0	89 82
Maryland.....	26,072	17,845,699	684.5	55 89
Mississippi.....	49	18,600	379.6	69 19
Missouri.....	5,433	5,372,738	988.9	124 51
North Carolina.....	221,890	138,813,163	625.6	62 41
Oklahoma.....	82	50,546	616.4	64 78
South Carolina.....	30,082	25,583,049	850.4	70 59
Tennessee.....	90,468	68,756,599	760.0	62 58
Texas.....	324	161,533	501.6	80 35
Virginia.....	185,427	132,979,390	717.2	65 63
West Virginia.....	17,928	14,356,400	800.8	107 27
Total.....	1,055,050	807,991,221	765.8	\$75 05

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	66,613	5,314,857	79.8	\$53 72
Arkansas.....	22,388	1,685,398	75.3	60 73
District of Columbia.....	126	19,662	156.0	105 45
Florida.....	21,995	2,083,665	94.7	55 98
Georgia.....	84,038	7,426,131	88.4	51 76
Kentucky.....	11,882	1,326,245	111.6	70 65
Louisiana.....	56,953	4,251,086	74.6	41 40
Maryland.....	7,956	1,065,956	133.9	60 08
Mississippi.....	56,045	4,427,988	79.0	54 84
Missouri.....	7,938	876,234	110.4	71 48
North Carolina.....	84,740	8,493,283	100.2	51 14
Oklahoma.....	5,056	359,451	71.1	69 33
South Carolina.....	48,878	4,319,926	88.4	53 33
Tennessee.....	26,216	2,504,490	95.5	61 99
Texas.....	42,010	2,730,083	64.9	52 31
Virginia.....	40,838	5,270,202	129.1	65 66
West Virginia.....	2,079	215,582	103.7	81 81
Total.....	585,751	52,370,149	89.4	\$54 32

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	14,486	1,128,564	77.9	\$61 06
Arkansas.....	29,719	2,096,893	70.6	48 45
District of Columbia.....	226	32,028	141.7	89 51
Florida.....	8,509	856,967	100.7	98 68
Georgia.....	11,877	886,430	74.6	57 62
Kentucky.....	55,750	5,120,141	91.8	48 86
Louisiana.....	19,655	1,183,525	60.2	47 03
Maryland.....	39,299	3,444,311	87.6	45 37
Mississippi.....	8,342	644,742	77.3	65 81
Missouri.....	96,259	7,796,410	81.0	46 44
North Carolina.....	31,900	2,372,260	71.0	54 87
Oklahoma.....	32,295	1,897,486	58.8	38 71
South Carolina.....	8,610	782,430	90.9	70 78
Tennessee.....	40,963	2,922,713	71.1	43 70
Texas.....	36,992	2,235,983	61.9	50 57
Virginia.....	86,927	8,770,778	100.9	65 20
West Virginia.....	42,621	4,077,066	95.7	53 46
Total.....	563,620	46,248,727	82.1	\$52 32

States.	Acreage.	Production.		Value per acre.
		Bushels.	Per acre.	
Alabama.....	100,609	1,573,796	15.6	\$14 82
Arkansas.....	10,192	168,608	16.5	17 90
Florida.....	126,150	2,315,089	18.4	17 02
Georgia.....	160,317	2,569,787	16.0	15 23
Kentucky.....	79	1,735	21.9	23 63
Louisiana.....	25,020	412,037	16.5	16 88
Maryland.....	1	30	30.1	37 00
Mississippi.....	13,997	284,791	20.3	22 66
Missouri.....	130	3,220	24.7	31 07
North Carolina.....	195,134	5,980,919	30.6	27 51
Oklahoma.....	1,564	31,880	20.4	22 36
South Carolina.....	7,596	154,822	20.3	18 99
Tennessee.....	18,952	547,240	28.8	20 41
Texas.....	64,327	1,074,998	16.7	16 71
Virginia.....	145,213	4,284,340	29.5	29 20
West Virginia.....	64	...	...	...
Total.....	869,281	19,403,356	22.3	\$21 00

### On Carolina Sand Hill Land.

The Never-Fail Farm,  
Pineview, N. C., July 27.  
Editor Manufacturers Record:

I promised to write you concerning developments in this section, not particularly what I am doing as an individual, but what is being done generally, due to my having purchased a large tract of land here, and others who have likewise purchased large tracts, among whom is Congressman Kent of California and his associates, ex-Sheriff Jas. Jordan of Guilford county, their holdings adjoining mine.

We have approximately 15 miles of railroad frontage on the Atlantic Coast Line Railroad between Sanford and Manchester. These people are at present grading about eight miles of road and laying out a townsite about one mile square. They have already put up several houses and offices, and I understand they are going to build a large hotel.

My own personal efforts up to this time have been spent along the lines of developing farms. We have been here less than a year, but have already opened up quite a section of country. We have about 500 acres cleared, most of which is under cultivation in corn and cotton. The cotton has been a little backward, but it is coming out now and bids fair to give a splendid yield. The corn is making a wonderful showing. Our land, of course, is practically all new, having been cleared within the past year. People who have looked at our corn say that it bids fair to give anywhere from 50 to 100 bushels per acre, which isn't so very bad for new land.

Now, it does seem to me that with the great prospects and opportunities offered in this section of country, that the people in the congested or thickly-settled quarters, and the farmers in the North and West, where they have long, hard winters, would grasp the opportunity of coming to this country and securing some land while it still can be had for from \$10 to \$25 per acre, as these prices cannot prevail long, as the tide of immigration is undoubtedly southward, and those who are lucky enough to get in now will, beyond the question of a doubt, make no mistake.

This particular section of country is said to be one of the finest peach-growing sections in the United States. We have a small orchard on our place here that was planted three years ago. The trees are breaking down with fruit, which is of extra fine size and quality, and if those people who are inclined to raise fruit could see how peaches are grown in this section, and the fine quality, they surely would hasten to make their investments here.

Our land here is what is called "sand hill land;" it is of a dark, sandy loam, with a fine clay subsoil, and is susceptible of a very high state of cultivation. We have about 50 acres in cowpeas, and they are a sight to see. I pulled up a few plants to see whether or not they were storing nitrogen, and was surprised indeed to see the great bunches of nitrogen nod-

ules already attached to the plants. This tells its own story.

Now, it is not my intention or purpose to weary you with a long letter at this time. I read your journal each week with a great deal of interest, and the people of the South surely owe you a vote of thanks and gratitude for the work you have done and are doing in the way of helping develop this great country, which has been so long neglected. JAMES A. HARPS.

### To Benefit Yourself and Others.

Are you doing anything to broaden the knowledge of the men around you, or in your employ, about the marvelous resources and progress of this country?

Are you doing anything to counteract the evils which have been brought about through the preaching of class hatred in this country of late years?

Evil can only be overcome by good.

Are you doing your part in helping to spread among your clerks and other employees or associates the knowledge of the good that is to be found in the study of the material resources of this country, of the enormous expansion of business activities that afford an unlimited opportunity for men who are willing to work and to throw into their work wholehearted energy?

Do you realize that unless you are helping to counteract the evil which is at work, you are to that extent responsible for the injury which may be wrought to the business interests of the country as well as to our Government itself?

You are doubtless constantly receiving many publications devoted to the advancement of business—agricultural, industrial, scientific—the study of which would be of very great value to men around you. Would you not be doing them a service, doing good to yourself and all business interests and to the country itself if you would regularly distribute these industrial and technical publications to men in your employ and encourage them to read such literature and thus broaden their knowledge and make them better citizens and better workmen? Instead of allowing publications of this kind to accumulate around the office or throwing them in the waste-basket after being read, would you not be benefiting mankind generally, yourself included, by handing them to the men around you? Will you not do this every week without fail with the MANUFACTURERS RECORD?

### Wants Barrels for Packing.

H. H. Barreda, M. E., P. O. Box 273, Mayaguez, Porto Rico, writes to the MANUFACTURERS RECORD:

"I would like to find information and addresses of some manufacturers who make barrels for packing purpose, such as potatoes and apple barrels or such a kind; the intention is for packing bottles for shipping to long distance. Barrels like the ones used for cement will be the article we desire; my customer intends to buy about 500 barrels per week if the prices are satisfactory."



## Planning a Great Port.

E. H. Hewlett of the South Mobile Terminal Co., 10 Wall street, New York, writes to the MANUFACTURERS RECORD as follows:

"The South Mobile Terminal Co. and the Alabama Port Land & Improvement Co. are working to the end of making Alabama Port the chief port on the Gulf of Mexico and to establish thereat a city which will be a suburb of Mobile for the present, but eventually will be a part of that city when it takes its proper place as one of the chief seaport cities of the United States.

"The South Mobile Terminal Co. is constructing docks in Mobile Bay of such capacity as will accommodate any traffic on the Gulf and equipping them with railroads, warehouses, coal pockets and modern machinery to handle the business cheaply and efficiently. The Alabama Port Land & Improvement Co. is contributing almost five square miles of fine land adjacent to the docks, expertly arranged as to railroad terminals, manufacturing sites, commercial business section and residence division.

"Alabama Port is in Southern Alabama, in the southeastern extremity of Mobile county, on the lower shore of Mobile Bay, just inside of the bay's entrance to the Gulf of Mexico. It is protected from the open sea by Dauphin Island, 13 miles long by about a mile wide, and by the long end of the Baldwin county peninsula, terminating at Fort Morgan. Alabama Port already has rail connections with Mobile and all trunk lines reaching Mobile by the Mobile & Bay Shore Railroad, a branch of the Mobile & Ohio-Southern system, with both freight and passenger trains in daily operation. Another steam road is now being surveyed that will duplicate the present rail facilities. In addition, an electric traction line is also being located, connecting with Mobile and all other coast points.

"With these facilities is coupled the fact that excellent county roads make Mobile easily accessible by automobiles. That Mobile county has passed a half-million bond issue to make these county roads permanent is assurance that these facilities will keep pace with the great development that will surely take place. This harbor can be easily reached by barges and tows coming down the great Alabama system of rivers, carrying coal, iron ore, stone, clays and timber from the hardwood and pine forests above. With these exceptional transportation facilities by water and by rail; with its location by the sea, close to the Gulf; with a fine, healthful climate, there is no factor lacking to make of this a great manufacturing center as well as a great port.

"The plans of the company for the development of these advantages are on a most comprehensive and extensive scale, the purpose being to establish a great harbor, coaling station and industrial center. These plans embrace a most complete and expansive system of docks, slips, loading basins, breakwaters, etc. The docks will be after the plan known as the 'herringbone' system, having numerous piers about 100x800 feet, with slips about 200x800 feet radiating from a main stem or pier 400 feet wide, extending seaward thousands of feet, making this a flexible series of dock units, subject to great extension. An important feature of the plan is the immense area to be devoted to warehouse and storage space for concentrating and accumulating cargoes, which will be equipped with the best modern loading and handling devices, electrically driven, so that the heaviest

freights may be handled, stored and loaded at the lowest cost and the greatest saving in time. A coaling station of large capacity, for storing and delivering export and bunker coal, is included in the company's plans.

"The channel from the docks to natural deep water, which is to be dredged for a distance of about four and one-half miles, will extend in a southeasterly direction, making a straight line to the sea. When finally completed it is intended to have a channel about 400 feet wide, with a depth of 35 feet, so as to accommodate the deepest vessel that can pass through the Panama Canal.

"All of the company's plans are simple and practicable, and have been passed upon by experienced and expert professional engineers. There are no great physical difficulties in the way, no impracticable obstacles. It has all been figured out and planned on exact lines, and the work is now being done and will be prosecuted on those lines to a completion, adding another great factor in Alabama's commerce.

The company plans to erect a large power-house to furnish electric power for running plants and lights, and will be able to furnish power for any purpose at the lowest possible cost. An abundance of pure water will be supplied from the company's plant. The factory subdivision faces on Mobile Bay, and every plant will have means of access to the docks, wharves and water-front.

"It is the logical point for a steel plant on the Gulf, and no one doubts that a steel plant will ultimately be located on the Gulf on account of the proven value of combining Alabama ore with the Cuban and Venezuelan ores, which can be assembled there at low cost and produce steel on deep water. On account of the traffic on the Gulf and the opening of the Panama Canal it is the logical point for a drydock and shipbuilding and ship-repairing company.

"The shippers of the products mentioned are heartily in sympathy with the enterprise, and we have been given their assurance that they will utilize the facilities when they are completed. The great products of the North, too, will use our facilities because of our location and rates. The development of the great resources of the South is in its infancy, and is bound to advance wonderfully because the world needs its products more than ever before.

"This does not necessarily mean that the other Gulf ports will not get their tributary business. What is being done might be called holding the tonnage tributary to Alabama Port. Instead of losing much of this as has obtained in the past, it is the purpose to hold all tonnage now available and add thereto wherever available.

"Much capital has already been invested, but ultimately millions will be required as the proposition demands and warrants."

The South Mobile Terminal Co., about whose operations with the Alabama Port Land & Improvement Co., Mr. Hewlett writes, is apparently an enterprise with which the General Electric Co. is identified, either directly or indirectly. There is a general supposition that it is to a considerable extent a General Electric undertaking. John W. Upp, president of the Alabama Port Land & Improvement Co., is at the head of an important department of the General Electric Co. of Schenectady, N. Y. Mr. Hewlett himself is a general engineer of the electric company, and Charles E. Barry, the treas-

urer, is also connected with the General Electric Co. Among other directors are: A. William Sperry, president Sperry Engineering Co., New Haven, Conn.; P. J. Lyons, vice-president City Bank & Trust Co., Mobile, Ala.; Stanton M. Smith, president Holbrook Manufacturing Co., New York, and director Union Trust Co., Jersey City, N. J.; George Karsch, director West Side Bank, New York City; John T. Stevens, president Kershaw Mercantile & Banking Co., Kershaw, S. C., and August Tietjen, director West Side Bank, New York City.

Mr. O. G. Thompson of the New York office of the company advises the MANUFACTURERS RECORD that the proposition has been financed and the stock and bonds sold.

The carrying out of this enterprise on the scale stated in Mr. Hewlett's letter would be of the utmost importance to the commercial and industrial interests of the Central South. Such an enterprise, if carried out at Mobile on the comprehensive plan worked out at Texas City, Tex., where such remarkable achievements have been made, as have from time to time been reported in the MANUFACTURERS RECORD, would have a very great effect in stimulating other ports in the South to fully utilize their opportunities by providing adequate facilities of the most modern kind for handling commerce.

### BIRMINGHAM IRON MARKET.

#### Improvement in Demand for Prompt Deliveries.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., August 3.

In the local pig-iron market a decided improvement in the demand for prompt deliveries is noted, while considerable more interest is manifested by the trade generally in future requirements. The sales made in the week aggregate a very attractive tonnage, in which is included some 1000 to 1500 tons of analysis iron that brought a premium over the \$12 Birmingham basis for No. 2 foundry. In one instance \$13.25 per ton at furnace was the price for some of the tonnage just referred to, while a small lot of silvery was sold at \$14 per ton at furnace. An aggregate of 5000 to 7500 tons of No. 2 foundry, in comparatively small lots for early shipment, was sold at \$12 Birmingham, which is believed to have been the lowest base price for any of the transactions recorded in the week. In certain sections of the trade lower quotations than represented by a \$12 Birmingham base are reported as having recently been made. As to the sections referred to where there is a freight advantage from certain furnace plants, it is likely that a concession to the extent of that advantage is obtainable. However, such conditions have usually prevailed, and these quotations mentioned do not necessarily mean a decline from the \$12 schedule. The tonnage being offered at this last figure is no larger than at the time of last report. One of the large producers, who has been out of the market for some weeks, recently entered with some tonnage at the \$12 price, but it is understood that sales have been effected to take care of the offering. In this case referred to the producer remains out of the market, notwithstanding the recent addition of one active furnace to its production. The extent of stock accumulations as of August 1 will not be known until next report. More or less tonnage was put on yards during July, but the sales made in the month are in all cases believed to have been larger than the output, while from certain yards the movement was in excess of the output to such an extent as to take care of the surplus at other plants.

The fact that the market was comparatively quiet all during July, but took care of the furnace output, is considered very significant of satisfactory conditions in the general foundry trade, as the buying for the month was largely by the small melters. The volume of inquiry from this last referred to, that is now before the selling interests, is very satisfactory, and is indicative of a fairly heavy buying movement in the next 10 days. Shipping instructions received since the first of the month, and applying on contracts previously entered, are very satisfactory; in fact, certain of the producers are quite unable to make delivery at the rate agreed on in the original transactions owing to the heavy specification of certain grades. With the market fairly active, prices for deliveries within the remainder of the year are quoted as below per gross ton f. o. b. cars here, viz.: No. 1 foundry, \$12.50; No. 2 foundry, \$12; No. 3 foundry, \$11 to \$11.50; gray forge, \$10.50 to \$11; standard basic, \$11.50 to \$12; charcoal iron, \$22.50 to \$23.

The most important of orders placed with local cast-iron pipe manufacturers in the week are lots of 900 and 600 tons each for the requirement at Texas points and at Pueblo, Col., respectively. For the first mentioned it is understood that an advance of \$1 per ton over the prices quoted was had, which the price consideration in the transaction involving the last referred to is not given out. Specifications for 1600 tons of water pipe for the requirement at Coffeyville, Kans., which have been held in abeyance for some weeks, have just been received, and an aggregate of 2500 tons of water and gas pipe for requirement at other Texas points than referred to above is to be furnished promptly. The movement of all sizes from local plants during July was equal to the output, and stock accumulations of any sizes are very small.

Some additions have been made to the contract for early letting, but no large requirements are pending in definite form. Asking prices are generally the same as last reported, which mean an advance of \$1 to \$2 per ton at Birmingham that has been effected in the past four to six weeks. Water pipe, or class "B," is quotable as follows per net ton f. o. b. cars here, viz.: 4-inch, \$23.50; 6-inch and up, \$21.50, with \$1 per ton extra for gas pipe, or class "A" pipe. Special fittings are quotable at from \$45 to \$50 per net ton at foundry.

The volume of orders being placed for finished iron and steel, in view of the recent advances, is very satisfactory, especially so since practically all local capacity is behind with specifications. Prices for light steel rails have just been further advanced, making a base of \$1.45 per hundredweight at Birmingham. Delivery of 16-lb., 20-lb., 30-lb. and 40-lb. sections of this last requires from three to six weeks' notice, while 12-pound sections can hardly be had. Specifications for standard rails at the Ensley mill for delivery in August are understood to call for some 10,000 tons more than was specified for shipment in July, while all available capacity was necessary for the July requirement. It has been announced that the receiver of the Southern Iron & Steel Co. will make no change in the operations of the properties of that concern, and that there is sufficient volume of orders on books at the Alabama City mill to take care of a steady output of the several products.

The largest transaction in the old-material market for the week involved some 500 tons of car wheels, which were sold to a Knoxville (Tenn.) dealer. The price consideration for the tonnage mentioned is reported at \$12.50 per gross ton at Bir-

mingham. Accumulations of wrought and steel grades are decidedly more in evidence on local yards, but the asking prices for such grades are being adhered to strictly. The melters of light cast have been most interested in this market for some weeks past, due to the continued scarcity of low-grade pig-iron and the high prices for such iron that has resulted. The schedule of dealers' asking prices is about as follows per gross ton f. o. b. cars here, viz.:

Old iron axles, \$15 to \$16.  
Old steel axles, \$12 to \$14.  
Old iron rails, \$12.50 to \$13.  
No. 1 railroad wrought, \$12 to \$12.50.  
No. 2 railroad wrought, \$11 to \$12.  
No. 1 country, \$9 to \$9.50.  
No. 2 country, \$7 to \$7.50.  
No. 1 machinery, \$9.50 to \$10.50.  
No. 1 steel, \$10 to \$11.  
Tram car wheels, \$8.50 to \$9.  
Standard car wheels, \$11 to \$12.  
Light cast and stove plate, \$8 to \$8.50.

In the coal and coke market a significant transaction of the week involves some 12,000 tons of furnace coke for consumption at a local plant. In order to furnish this tonnage a battery of ovens that has been out of blast for some time past will be put in operation, and, of course, the mining operations at that plant will be increased accordingly. Spot delivery of steam coal is no more in demand than formerly, but considerable tonnage has been entered recently to take care of operations necessary to the cotton industry, which will be under way within the next few months. Asking prices on all contract considerations for coal and coke are slightly higher than for a month past. The scale of prices for domestic coal is, of course, being maintained as advanced from month to month. In the aggregate the output from all mining operations in this State is short of normal just at this time—in some instances a very limited force being employed—but the movement is expected to increase gradually through the fall and winter. As is to be expected with the proposals for a larger output from Alabama mines, the efforts of operators to increase the territory to be supplied gradually increase. The latest development in this connection is the improvement to facilities at Mobile for taking care of bunkering trade, as proposed by the Pratt Consolidated Coal Co. Recent advances in freight rates from Illinois and Kentucky fields to Gulf Coast points is a notable feature to Alabama operators, while as a result of the asking price being adhered to for Virginia and West Virginia coal and coke Alabama miners have been able to extend their territory toward the East Coast.

Incident to the appointment of a receiver for the properties of the Southern Iron & Steel Co., James Bowron, as receiver for those properties, announces that no changes whatever will be made in the operations, and that all contracts will be fulfilled by the same executive and sales force as heretofore. In substance, Mr. Bowron states that when practicable the properties will be sold under foreclosure and title vested with such parties as are willing to furnish capital for the completion of such parts of the company's works as are not completed, and for the making of additions and improvements heretofore decided upon.

#### Investing in the South.

The International Gas & Electric Co., of which Bachman & Co., New York, are the financial agents, is installing two gas plants in the South, one at Concord and one at Wilson, N. C. The system to be used is the Lowe water-gas apparatus, and is being installed by the United Gas & Improvement Co. of Philadelphia.

#### In Kentucky Coal Fields.

[Special Cor. Manufacturers Record.]

Barbourville, Ky., August 5.

The Diamond-Jellico Coal Co., organized a few days ago by Toledo (O.) men, has leased the plant of the Tunnel-Jellico Coal Co. of this city, situated in the Rossland district of Knox county. The new company, which has established offices at Corbin, Ky., with R. St. John as manager, contemplates considerable additions to the equipment of the plant and will increase the capacity.

A \$50,000 plant is now being installed in the Tye Fork district of Knox county by the Dean-Jellico Coal Co., organized here a few weeks ago by Robert W. Cole, John Lawson, J. M. Robinson and A. J. Croley. The plant will be the largest in the Tye Fork district, and when completed the operation will have a capacity of close to 1000 tons daily. The mines will probably be electrically equipped.

Last week the New Hughes-Jellico Coal Co. was organized here by A. M. Decker, P. D. Black, Robert Cornett and M. J. Moss. The company purchased outright the plant of the old Hughes-Jellico Company in the Ely Hollow district of Knox county. No present changes in the plant are contemplated. The mines are operated by electricity and are the largest in the Ely Hollow district.

The largest deal of recent consummation in undeveloped lands was the purchase a few days ago of several thousand acres on Poplar Creek, Knox county, from John E. Golden of this city by the newly-organized Knox County Coal Co., composed of Lexington and Barbourville men. The price paid is reported to have been \$250,000. Mr. Golden is an official in the Knox County Coal Co., and states that developments will proceed at an early date.

A few days ago Mr. Golden purchased a large boundary of coal land in Clay and Leslie counties, which he will hold for future development. This land is not yet reached by a railroad.

Last week Messrs. W. C. Black of this city and H. B. Jones and Harry Bullock of Pineville purchased a tract of coal land in Leslie county, bordering the new Lexington & Eastern Railroad extension. They will organize a company in the near future and install a mining plant. All three gentlemen have other mining interests in the Southeastern Kentucky field.

Investments on a large scale in Clay county coal lands lately and activity in railroad circles lead to the belief that this extensive undeveloped coal field will soon be reached by a railroad extension. For a number of years a line from this city into the Clay county fields has been under consideration and several surveys have been made. Last week a new surveying party went over the route, and a committee of Clay county people, headed by John C. White of Manchester, is endeavoring to secure rights of way for an extension which is supposed to be contemplated by the Southern Railway. This system is supposed to own the Cumberland Railroad, a coal line from this city into the Brush Creek district, extending south. The Clay county field would be entered by a northern extension, and the two lines, as arrangements stand, would be connected and form a link in a through line from Jellico, Tenn., to Beattyville, Ky.

Clay county is one of the few Eastern Kentucky counties now untouched by railroads. In recent years several million dollars have been invested in the aggregate in coal lands and very few large tracts are now available. The opening of this territory for development is now regarded as a matter of only a short time.

The Interstate Coal Co., one of the

largest concerns in Kentucky and the largest development factor in the Knox county field, has further enlarged its holdings by the purchase outright of all the holdings of the Cumberland Coal Co. in the Brush Creek field. The Interstate Company, which is an enterprise of Geo. L. Carter, has investments in this county considerably in excess of a million dollars, and the recent deal with the Cumberland Coal Co. involved over a quarter of a million dollars.

W. S. HUDSON.

#### IN HARDWOOD TERRITORY.

Completion of a \$30,000 Furniture Factory at Asheville.

Board of Trade,  
Asheville, N. C., August 3.

Editor Manufacturers Record:

The plant of the American Furniture Manufacturing Co. of Asheville has just been completed at a total cost of about \$30,000. The machinery building is 60x186 feet, three stories high; the finishing building is 60x156 feet, two stories high. Both are of frame construction, resting on concrete pillars. The drykiln is of wood, 30x90 feet, 12 feet inside clearance, conveniently situated to the machinery building, with a capacity of 80,000 feet, and has three transfer tracks. Buildings and drykiln are heated with steam from a 150-horse-power boiler made by the Atlas Engine Works, in a brick boiler-room 20x30 feet located a few yards away from the drykiln.

Over 1000 feet of tracks lead from the railway track and yards to drykiln, so that loaded trucks may come direct from unloading track or any part of lumber yard to kiln.

An interesting feature of the arrangement of this factory is that the individual motor drive has been installed, there being 20 motors, totaling 220 horse-power, ranging from 2½ to 35 horse-power except in two instances, where three small machines have been grouped together and operated with one motor.

The sale of scrap wood will practically equal the cost of the electric power, which is furnished by the North Carolina Electrical Power Co. from its Marshall plant, which was recently constructed at a cost of \$500,000. All machinery is of the latest design and manufacture.

By reason of location in the midst of the hardwood lumber territory, a stock of only 350,000 to 450,000 feet of lumber is carried on hand, the management stating that within 10 days a stock of possibly 1,000,000 feet could be accumulated, this being one of several good reasons for the location of the plant at Asheville. The plant now employs 91 men, including office force, and the output this year will be 300 cars or more of medium and high-grade furniture.

Very low freight rates have been made by the Southern Railway. All conditions have proven so satisfactory that already an option has been taken on four additional acres of land adjoining the present three acres of the company, on which to erect an addition to the present plant. Work on the addition will be started this year.

N. BUCKNER.

#### Financial Difficulties of the Southern Iron & Steel Co.

The Southern Iron & Steel Co. has been placed in the hands of a receiver, with Mr. James Bowron, the former president, as receiver. Mr. Bowron announces that the plants owned by the company will be kept in full operation, and that out of the receivership it is expected there will come plans for reorganization which will put the whole property on its feet financially. When this company was organized several years ago as a successor

to the Southern Steel Co. it was, as recently stated in the MANUFACTURERS RECORD, very heavily overcapitalized. It has been in some financial difficulties ever since, having defaulted on its bonded interest. For a year or more efforts were made to bring about a consolidation of this company and the Alabama Consolidated Coal & Iron Co., with a view to provide fresh capital, in order that the operation of these two companies might be continued on a larger scale. The failure of the negotiations looking to this consolidation has resulted in both companies being placed in the hands of receivers. With sufficient capital for development work and for operation, both of these companies ought to be financially successful. They need very considerable development of their properties, modernizing to some extent of some of their plants and the building of by-product coke ovens, and possibly the rounding out of some of their raw material resources in order to safeguard the future. With these things accomplished they ought to rank among the solid and substantial coal and iron and steel interests of the country.

#### Activities at Denison.

Chamber of Commerce,

Denison, Tex., August 2.

Editor Manufacturers Record:

The harvesting of a magnificent grain crop, with splendid yield of corn and small grain, and the best prospects for the largest cotton crop ever known in this section are contributing to activity here. Denison is situated in a fertile fruit and truck growing belt, and this line of industry is proving exceedingly profitable.

The Missouri, Kansas & Texas Railway Co., which has shops, creosoting plants and division headquarters here, is doing extensive work in the city, increasing its trackage and other facilities to care for growing business. Announcement that the Texas Traction Co. and the Strickland interest contemplate extending across the Red River at this point with an interurban to Oklahoma City, and the establishing here of a big central power plant has caused an impetus in city growth. Extensive improvements are being made by the Southwestern Surety Insurance Co.

Although Denison is well equipped with a splendid array of factories, yet at this time there is opportunity for cigar factory, overall factory, canning factory, packing plant, soap factory, brick factory, glass factory, broom factory, mop factory, chair factory and other woodenware factories.

Denison also presents an opening for a wholesale drug and druggists' sundries house. Factory and wholesale sites are to be obtained very easily, and men of industry and ability will find a cordial cooperation by the business men here in the matter of establishing new lines and hearty support thereof when established.

M. B. DAVIS, Secretary.

#### Steam Tests of Portland Cement.

The bureau of standards of the Department of Commerce and Labor, in connection with the investigation of structural materials, is conducting a series of tests to determine the action of high-pressure steam on Portland cement. It has been found that high-pressure steam will greatly accelerate the hardening of certain cements, increasing their strength several hundred per cent., but will cause the complete disintegration of other cements which under normal conditions appear to have the usual physical qualities. The present investigation is in part an extension of the work reported in Technologic Paper No. 5, "The Effect of High-Pressure Steam on the Crushing Strength of Portland cement Mortar and Concrete."



## UPON HOME SUPPLIES.

## The Basis of Full Southern Development.

In discussing the need of the development of new industries in the South to produce to a larger extent than at present the supplies that are constantly needed, Mr. J. A. Pride, industrial agent of the Seaboard Air Line, in an interview with the MANUFACTURERS RECORD said:

"In a city on our line there was recently built a large skyscraper. The iron framework came from Indiana, though the great iron-ore fields of Alabama were but a few miles distant. The face brick, to the extent of 75 carloads, came from Ohio, though the South has resources in clay for making all grades of brick not surpassed in the country. The glass came from some point in the West, though glass sand is abundant in the vicinity. The great vaults were built of Western-made steel, though Birmingham can produce steel equal in quality to any made in the land. And so from foundation to top this building was largely constructed of materials made outside of the South, but for the making of which the South has advantages equally as great as any other location in the country.

"This building is only a type, however, of hundreds of other buildings that are being erected in the South. Every skyscraper that is going up in the South, telling of increasing prosperity, is making a broader market for the steel works, the glass works, the brick works, the engine and boiler shops of the West and the North. To a very large extent these Western manufacturing interests are looking to the South as their chief market. The development of the South is enriching them, and yet the South ought to be creating industries which would make at home these various products for which the demand is so rapidly increasing.

"There is also," said Mr. Pride, "a great need for the production in the South of food supplies. Atlanta, for instance, buys one or two carloads of Wisconsin butter every week, every pound of which ought to be made by the farmers in the surrounding territory. Every other Southern city is following the same example. Even Norfolk, with the rich agricultural country of Virginia tributary to it, buys much of its butter in the Northwest. This is because the production and marketing of home supplies has not been taken hold of properly. These opportunities should be utilized by the farmer, the dairyman and the manufacturer in order that the South may keep at home the hundreds of millions of dollars which it now annually sends to other sections for things which it could to better profit produce at home."

## Paving Information Wanted by Tampa.

Tampa, Fla., August 2.

Editor Manufacturers Record:

Will you please put me in communication with the manufacturers of the presses and other machinery used in the manufacture of asphalt paving blocks. My understanding is that only the machinery used in the manufacture of these blocks, and not the blocks themselves, is patented.

I would like to learn also where asphalt can be secured in large quantities.

The asphalt paving blocks seem to be meeting with great favor from our people. An experimental section has been laid on the principal street here, and a contractor has been awarded a contract for one and one-half miles more. But the price we are having to pay seems unreasonable, and it has been suggested to me by a paving contractor that as there is ample pebble of good quality easily and cheaply available, probably a plant could be estab-

lished here and these blocks supplied to our people at a much lower price than has been quoted heretofore.

As you know, in our proposed bond issue there has been \$750,000 set aside for street paving, and with the amount that will come from the abutting property-owners there will be about \$1,500,000 available for this purpose. If we can get asphalt blocks of good quality and at a reasonable price, I believe it is what our people would prefer.

D. B. McKAY, Mayor.

## TO DRAIN 100,000 ACRES.

## Drainage System to Be Constructed Near San Benito.

Spears & Morrison of San Benito, Tex., writing to the MANUFACTURERS RECORD regarding San Benito, Cameron county, drainage district No. 3, say:

"There are 41 drainage ditches, aggregating about 143 miles in length, requiring about 2,400,000 cubic yards of earth excavation, with sundry bridges and culverts. The cost of these improvements will be about \$400,000. No pumping plants will be required. Bids for this work will be opened at 12 o'clock noon September 3, 1912. This drainage system September 3, 1912. This drainage system will drain about 100,000 acres of land in Cameron county, in the vicinity of San Benito. These lands are and will be used for irrigated farms; \$450,000 of bonds have been issued as of date July 10, 1912, and the successful bidder will be required to purchase them immediately upon award of the bid and execution of contract at par and accrued interest. These bonds bear interest at the rate of 5 per cent. per annum, payable semi-annually on the 10th day of April and the 10th day of October of each year. The bonds are payable in 25 equal annual installments of \$18,000 each, principal and interest payable at the office of the St. Louis Union Trust Co., St. Louis, Mo.

"The taxable values of the district are slightly in excess of \$3,000,000, and will increase as the lands in the district are developed and brought under cultivation. About 20,000 acres are now in cultivation. The district includes the town of San Benito, with a population of about 4000, and other smaller towns—La Paloma, Los Indios, Rio Hondo and Annita. In this district is the irrigation system of San Benito Land & Water Co., consisting of its pumping station and headgates of the Rio Grande, 37 miles of main canal from 200 to 600 feet wide, 10 to 20 feet deep, and 140 miles of main laterals and canals leading out from said main canal."

## \$1,000,000 Warehousing Plan for Jacksonville.

With a view to providing adequate warehousing and terminal facilities at Jacksonville, leading business men of that city have organized the Union Terminal Co. with C. B. Gay as president and H. B. Hoyt as vice-president. It is reported that Western capital will be interested in this enterprise. The company, which has been organized with a capitalization of \$1,000,000, proposes to erect a terminal warehouse which will have seven acres of floor space. The building is to be five stories in height and constructed of reinforced concrete and steel. It will have two subways, as well as railway tracks on two sides. It will have high-power elevators, and all modern improvements needed to make it an attractive location for wholesale houses.

Similar warehousing enterprises have been established in other cities to their very great advantage and to the profit of business houses which have the opportunity of using such facilities. The con-

struction of this building as planned by the Union Terminal Co. will be in keeping with the growth of the general business interests of Jacksonville.

## FOR ANNISTON'S GROWTH.

## Citizens Alert to Measures for Development.

[Special Cor. Manufacturers Record.]

Anniston, Ala., July 30.

The United States Government is trying out the proposition made by the citizens of Anniston to accept 4000 acres of land and acquire 26,000 adjacent acres for a permanent maneuvering grounds for the militia regiments from eight Southern States, including North and South Carolina, Georgia, Alabama, Florida, Louisiana, Kentucky, and possibly Mississippi. The annual encampments of several of the regiments from these States have already been held, and the Kentucky and South Carolina regiments are this week in camp, which is located about one mile from the city of Anniston. There are several reasons why the Government selected this location. The main reason was Anniston's central location and its railroad facilities. Another, and one of the most important, too, is the health record of Anniston and vicinity. The health record of the camp of 1912 has been exceedingly good; only one death from natural causes out of the 17,000 soldiers that visited Alabama this year was reported.

Anniston in itself is a good place for any person to visit. Here one finds a self-styled model city. And well it carries out this title. Every factor that constitutes an up-to-date city can be found in Anniston. The streets are well paved—asphalt in the business districts and macadam and chert on all the other prominent thoroughfares. The "white way" of Anniston is the pride of all its citizens. It traverses the prominent business streets and is in quality equal to that of Birmingham. In fact, it was designed and constructed by an Anniston firm, the Union Foundry Co., which has furnished Birmingham; Vicksburg, Miss.; St. Johns, Mich., and many other cities with similar street-lighting facilities.

The main manufactured article from the many diversified plants in Anniston is iron pipe of all kinds. The Chamber of Commerce states that a trainload of this is manufactured daily. Other manufacturing of Anniston are among the leaders in their line, and a decided effort on the part of the progressive citizens and the Chamber of Commerce is being made to attract others. Free sites and free taxes for five years after establishment are the leading inducements among others.

Even if Federal authorities do not decide to make Anniston the permanent center for all State militia activities for the eight States mentioned, and there seems now a good possibility of them doing so, the city of Anniston will continue its rapid and substantial growth. The reason is obvious—it is well located in the center of a growing community and will, of course, grow with it, namely, the South.

ROY G. BOOKER.

## To Increase Its Output.

The Alleghany Ore & Iron Co., through R. S. Lackey, treasurer, Iron Gate, Va., writes the MANUFACTURERS RECORD:

"In addition to our Iron Gate stack now in blast, we expect to blow in the Buena Vista furnace October 1 upon completion of some heavy repairs, including the installation of new boiler and two blowing engines. This furnace has been thoroughly overhauled, and with the additional equipment the output should be

considerably increased. During the shutdown for repairs we have accumulated a large stock of 'Oriskany' low-phosphorous high-manganese ore from our mines at Lignite, Va., which has also been extensively improved with a view to supplying both furnaces and making at Buena Vista the strong special analysis Alleghany grades well known to the foundry trade."

## A \$300,000 COMPANY FORMED.

## To Develop 10,000 Acres of Timber Land in Virginia.

The Tyro Development Co., Lynchburg, Va., will develop 10,000 acres of timber land in Nelson county, having purchased 5000 and obtained timber rights on 5000 acres. It will construct a standard-gauge railway, 16 miles long, from Tyre River station, on the Southern Railway, to the timber, and build four or five large sawmills. The property is estimated to contain nearly 102,000,000 feet of timber, and after the timber is cut the land is to be used for orchards. The company has organized with \$300,000 capital stock and the following officers: President, R. G. Leftwich; vice-president, C. W. Womack; secretary, L. W. Meeks; treasurer, W. M. Wayt; all of Lynchburg. The company advises the MANUFACTURERS RECORD that the railroad will be the only immediate construction undertaken, and that its plans include mining iron ore, manufacturing extracts, etc.

## To Develop 50,000 Horse-Power.

The Appalachian Power Co., Ladshaw & Ladshaw, engineers, Spartanburg, S. C., has purchased 1200 acres of land, including the Narrows and Potts Shoals, on the French Broad River near Hendersonville, N. C., and plans to construct a hydro-electric plant developing 50,000 horse-power for transmission by electricity, reports stating that \$1,500,000 will be invested. The purchase price of the property is said to have been \$180,000. Messrs. H. L. White, George T. Ladshaw, Horace Bomar, John A. Law and others, all of Spartanburg, are interested in the company, which was previously organized in connection with plans for a water-power development. Ladshaw & Ladshaw wire the MANUFACTURERS RECORD that they are not yet ready to announce development details.

## Building at Richmond.

In the past five years \$21,395,676 have been spent in building construction in Richmond, Va., according to the report of Building Inspector Beck. Of the total, \$6,504,925 have been upon 1593 brick dwellings, \$1,506,857 upon 1224 frame dwellings, a total of \$8,011,782 upon 2817 dwellings; \$2,354,500 upon 14 office buildings, \$2,188,156 upon 144 warehouses and factories, \$1,029,000 upon five hotels and \$534,233 upon public school buildings.

## Elkin Wants Industries.

Elkin, N. C., July 30.

Editor Manufacturers Record:

We are contemplating installing a general system of water-works in our town, but cannot proceed until after our Legislature meets in January, 1913, as we have to get permission from the Legislature to vote bonds. The proposition will carry by practically a unanimous vote. We are now putting down concrete sidewalks on all the streets. We have macadamized streets and electric lights, and expect to push the improvements as fast as possible. The population of Elkin at the last census was only 986, but we have gained some since. The location is all that could be desired by anyone wishing to invest in manufacturing cotton, furniture, etc. The Southern Railway is the medium for

transportation at present, though the Elkin & Alleghany Railroad is being constructed from Elkin to some point in Virginia on the Norfolk & Western, and when completed will be a direct line to the coal fields of Virginia and West Virginia. Labor is reasonably cheap, living is cheap, and the tax rate is low.

R. J. LEWELLYN, Mayor.

### Trust Companies in Texas.

The Continental Trust Co. is being organized at Waco, Tex., with a capitalization of \$1,000,000. In a prospectus issued by this company it is said:

"Texas, with its 130,000,000 acres that have never known the touch of the plow, her vast mineral resources, her enormous industrial enterprises, her lack of foreign capital, offers one of the greatest fields for trust company development of any in the United States.

"The property values of Texas are increasing at the rate of about \$600,000,000 annually, \$400,000,000 of which is unearned increment awaiting some instrumentality whereby its further development may be brought about."

Referring to the operation of trust companies in Texas, this prospectus says:

"The American Trust Co. of Houston commenced business December 4, 1911. During the first three months of operation this company earned \$62,887.01; declared a 3 per cent. quarterly dividend; carried \$27,887.01 to undivided profits account and \$20,000 to surplus. This is at the rate of 50 per cent. per annum. The Bankers' Trust Co., Houston, Tex., whose statement of December 5, 1911, shows a capital stock of \$2,000,000 and surplus and undivided profits of \$807,517.63. The company is now paying a 3 per cent. quarterly cash dividend to stockholders, and in addition thereto is setting aside a substantial increase to the surplus fund. The Southern Trust Co., whose statement of December 5, 1911, shows a capital stock of \$800,000 and a surplus fund of \$100,000 and undivided profits of \$171,046.33. The Bankers' Trust Co. of Fort Worth, Tex., began actual operation in March, 1911. In September they declared an 8 per cent. dividend and transferred 10 per cent. of the net earnings to the account of undivided profits, making 18 per cent. first six months. The National Exchange Insurance & Trust Co. of Waco, Tex., after only two and one-half months' operation, has declared and paid 3 per cent. cash dividends."

### Mobile Improvements.

Mr. John T. Cochrane, in an interview at Mobile, Ala., said last week:

"The completion of the new steel sheds of the City Wharf property is proof positive of the new progressive spirit existing in Mobile and is the best manifestation of the good that our new city government, under commission form, is bringing about. The Mobile Commissioners could not have done anything, in my judgment, and have not done anything, that speaks better for them than the erection of this magnificent facility for the river and foreign shipping interests of Mobile. The shed is well constructed, has a high ceiling and plenty of light, and such a structure, 100 feet in width and more than one-quarter of a mile in length, is an ornament and a facility to commerce that any city of several times the size of Mobile might be proud of, and this convenience to the shippers and our water-transportation people will unquestionably greatly increase this class of traffic for Mobile.

"It is one of Mobile's show places, and when I have a visitor now in Mobile, or there is anyone I wish to show the points of interest, I am proud to take them un-

der this shed and show it as an evidence of Mobile's civic pride and an actual demonstration of our belief in the truth of our statement that Mobile commerce is to be greatly benefited by the opening of the Panama Canal, and the shed is an evidence that we are getting ready for this business. That it is a good thing for the city to invest its money in such things is true from every viewpoint. The harbor frontage on which this shed is located has a variously estimated value of from \$1,250,000 to over \$2,000,000, and before the building of the shed was a possession of the greatest value to Mobile's shipping interest, but with the expenditure, comparatively small as compared with the value of the land, the usefulness of the property to the city and its people has been more than doubled in its value and aid to commerce.

"It does not seem to me to be amiss at some opportune time for the citizens to show their appreciation of this kind of use of the city's money by having a public meeting or demonstration, at which time the City Commission and those responsible for the improvement could be thanked and made to know that their efforts are appreciated."

### Somers Tax System.

[Houston (Tex.) Chronicle.]

So long as population increases, land value profits will increase.

This land value profit is the only one which the individual does not and cannot create. It is created by communities assembling and increasing in size.

The single land tax system—placing public taxes on nothing but land—carried to its logical conclusion by city, county, State and nation, would appropriate all of this socially-created increase in land values for social uses. None of it would remain for private profit. Private profit then would be limited to those values which the individual, or groups of individuals acting under a charter collectively, can themselves create.

Single taxers believe, if this were done, men of energy, owners of accumulated capital, would be spurred to invest in profit-creating enterprises, whereas now many such invest their accumulated capital in idle lands, which they do not improve, but from which they collect the socially-created land value profit. Single taxers say civilization would advance more rapidly if all men of energy, all owners of accumulated capital, were thus forced to seek profit through service rather than through taking toll on the efforts of other men.

The so-called Somers system of assessing property for taxation is undoubtedly a forerunner of the single land tax system. Under the Somers system cities raise the assessed valuation of land and lower the assessed valuations of buildings and other man-made improvements upon the land. The idea is to encourage enterprise and reduce the limits within which men of energy, owners of accumulated capital, can take a profit by speculation in land values.

The Somers system was introduced into Houston tentatively in the Spring of 1911, being applied experimentally to the downtown business district. City Commissioner Pastoriza, who is a single taxer, urged the step, and Mayor Rice and the other commissioners, after due consideration, consented to make a trial of the plan. It worked out so well that in January, 1912, this city formally adopted the Somers system and based its 1912 property assessments for taxation throughout the city on that system. Land value assessments were raised where it was clear there had been a considerable increase in

such values, were held stationary where no such gain in value was apparent, and were reduced where a loss rather than a gain appeared, or where it appeared there had been an unfairly high assessment made in previous years. Building value assessments were reduced approximately 50 per cent., the average tax assessment on buildings being about 35 per cent. of their costs.

City Hall now points with pride to these facts, results, it believes, of the new taxing system:

Building permits for July, 1911, 91, representing a total value of \$232,720.

Building permits for July, 1912, 79, representing a total value of \$683,450.

Building permits issued from October, 1910, to April, 1911, 833.

Building permits issued from October, 1911, to April, 1912, 1052.

The Somers system does not attempt to appropriate for the city the whole of the profit from increased land values. It does appropriate a small portion of such values. It by so much reduces the field of private profit in land speculation, and to exactly the same extent it increases the rewards for private energy devoted to land improvements. It stimulates building, which, in turn, creates a rising demand for good building lots, which tends to enhance the value of such lots. The net result is shown by the records to be increased activity in building; the city grows in visible wealth and in population; more jobs are provided for workers, more patronage for merchants, more opportunities for profitable investment of accumulated capital in constructive enterprises.

Houston's example is being studied and followed by other Texas cities. Over in Beaumont last week the city government referred to the citizens a proposition to adopt the Somers system. The people voted to adopt it. The vote was 500 to 71. In Galveston Mayor Fisher is making a close investigation of the system. He believes it will be adopted by Galveston the coming autumn.

### Tampa's July Commerce.

[Tampa Morning Tribune.]

July was the greatest month in value Tampa has ever had since the beginning of the records of the commerce of the port. The total value for the month of imports and exports was \$2,094,106, and this was an increase of \$498,000 over the month of June, which was the banner month up to that time. At all times the terminals were busy, and few idle moments were spent by the stevedores or their helpers. A total of 90 vessels arrived and 95 departed, an average of three arrivals and departures every day. All kinds of cargoes were received and many kinds shipped, more different kinds than any previous month this year.

The total net tonnage of arrivals and departures of vessels was 233,070, which was 45,000 tons less than during the month of June, but more vessels took full cargoes and many arrived with cargoes, then discharged and took cargoes for the return trips. The phosphate shipments were less by 7000 tons, but there was one cargo of hard-rock phosphate of 4300 tons shipped, which will make the value of that product equal to the value in June.

In the tonnage handled there was a gain in the following products in July over June, which range from 1 ton to 550 tons: Sand, iron piping, tile, ice, fruit and fish. The following cargoes were received in July that were not brought into port in June: Cotton dross, salt, cement and coffee. The first shipment to this port of coffee was received the last week in the month, when the fruit and

trading schooner Gardner W. Tarr, Captain Borden, brought in 15 sacks from Port Limons, Honduras. One schooner sailed with a cargo of cotton dross and another schooner arrived with a full cargo of salt.

Oil cargoes were larger than in June by more than 3,000,000 gallons, and each week one or more vessels arrived at the Atlantic Coast Line terminals with oil from Tampico or Port Arthur, some for the Gulf Refining Co. and some for the Standard Oil Co. More than 5,000,000 gallons was fuel oil, which is shipped to the phosphate mining companies in the surrounding territory and used for running their plants.

A gain of 450,000 feet of lumber was made the last month over the previous month, although the shipments were smaller to foreign ports. A total of 3,890,000 feet was handled, and of that amount there were 167,000 feet of cedar logs, and in June no cedar logs were handled. The first cargo of orange crates were shipped last week to foreign ports that has ever been shipped from Tampa, which will open up a new line of freight to the citrus fruit islands.

During the past month the gain has been steady, as there were no extra large cargoes received or shipped, but a steady growth and new lines of cargo.

### Big Things for Memphis.

[Commercial Appeal.]

We congratulate the Mayor of Memphis and the Illinois Central Railway people on reaching an agreement which will result in the immediate beginning of the work of constructing a new passenger depot at the corner of Main and Calhoun streets. The depot and the elevation of tracks will cost about \$3,000,000. There was a hitch in the agreement for the reason that where the depot was first planned there was no provision whatever for a parkway for carriages and automobiles. The depot was flush with the sidewalk lines of Main and Calhoun. Mr. Crump felt that this arrangement would result in a constant jam in Main and in Calhoun streets, and would be a source of great inconvenience to persons desiring to use the depot, and would block street car and vehicle traffic in Main street, which is becoming an artery into the southern part of the city. The plans were finally changed so as to provide a space for carriages and automobiles under the west side of the depot sufficiently large to care for all travel. The Illinois Central tracks will be elevated from a point where they leave the river front and will go overhead across old Shell street, the intervening streets and Calhoun street. The new depot will be used jointly by the Illinois Central, the Frisco and the Rock Island. The *Commercial Appeal* congratulates the people of Memphis that this great work will be quickly undertaken and will be pushed rapidly to a conclusion. If the Illinois Central cuts loose \$3,000,000 or \$4,000,000 here, and the Rock Island spends \$8,000,000 or \$10,000,000 in Memphis and in Crittenden county, and Brinkley Snowden begins work on his new million-dollar hotel, there will be great activity in and around Memphis during the next 24 months. If we can get these three enterprises under way you may be sure that other things of approximate bigness will follow.

### Money in Texas Hogs.

The American people must look the situation squarely in the face and understand that unless the production of cattle, sheep and hogs is not only maintained, but proportionately increased to satisfy the increasing population, prices for meat food-



stuffs must inevitable advance. The great State of Texas is admirably equipped with all natural conditions favorable to produce hogs in sufficient numbers to supply the home market. Instead, Texas imports each year \$7,000,000 worth of ham, bacon and lard from the North.—J. J. Ferguson in Fort Worth Star-Telegram.

### A Peach By-Product.

[Atlanta Constitution.]

High-water mark in the peach-canning industry in the American district is reported in a dispatch to the Constitution to the effect that with the closing of the season over 1,000,000 cans are ready for market. This prodigious output represents the work of three canneries which, during their six weeks of activity, employed 200 laborers.

It is probable that similar reports will be received from each part of the peach belt. The season now coming to a close has been an exceptionally favorable one, not only in the matter of fresh fruit shipped directly to domestic and Eastern markets, but as well in that by-product of the orchards expressed in the canning industry.

The inauguration of the canning industry marks a distinct forward step in the intensive utilization of the State's products. Only a few years ago the excess peaches represented in this big showing would have been sold for a fractional part of their value, been fed to the hogs or left to rot on the ground. With the opening of the canneries there has, therefore, been saved to Georgia a large sum which is, in reality, so much "velvet" over and above the annual revenues from this important product.

There is every reason why the preserving process should extend to other State products, and it doubtless will, with the greater application of the principle of diversification. Already corn and tomatoes are being canned for commercial purposes in various parts of the State. The richness of Georgia soil and the large area yet to be brought under cultivation indicate that in the near future this industry will comprise a most important source of revenue for the State.

### The Chickahominy Lowlands.

[Richmond (Va.) Times-Dispatch.]

A total of 14,892 acres of land in the Chickahominy lowlands may be reclaimed at an average cost of \$10.85 the acre. This is the substance of the report just made by George M. Warren, drainage engineer, to the Bureau of Drainage Investigations of the National Department of Agriculture. During most of the past year the engineers have been at work on this proposition, entirely at the cost of the Government, and their report sets forth the possibilities of the undertaking and its practical results. The overflowed lands can be drained. The work of the engineers is in such shape as to permit of bids being made by contractors based on it alone. The next step is in the hands of the property-owners. They may form a drainage association under the laws of Virginia either for the river as a whole or in sections, each covered by an organization. The State has arranged a plan by which the cost can be made a tax on the land and can be paid in easy instalments, while the rich bottom ground is more than making its cost of reclamation each year. Men who have been active in the drainage project, led by Dr. D. W. Starbuck, are arranging for the organization. A meeting will be called within the next few days, at which it is hoped the property-owners will get together and insure the success of the undertaking.

### SOUTHERN ALUMINIUM CO.

Contracts for Completing 45,000 Horse-Power Hydro-Electric Plant and for Aluminum Works.

The Southern Aluminium Co., Whitney, N. C., wires the MANUFACTURERS RECORD as follows:

"Contract for completion of canal awarded to Joseph Sands Company, Roanoke, Va.; contract for masonry and power-house to Hardaway Contracting Co., Columbus, Ga.; capacity of power station about 45,000 horse-power; present development work to commence immediately and be completed within nine months; works for the reduction of aluminum, with all necessary sidings, machine shops, stores, etc., will be constructed immediately; Dr. Paul Herault, who invented the process for reduction of aluminum, representing French interests in Whitney; W. P. Marseilles, general manager; Donald F. Campbell, engineer."

In June the MANUFACTURERS RECORD announced the plan of L'Aluminium Francais de Paris to purchase the North Carolina Electric & Power Co. property (former Whitney Company proposition) and organize the Southern Aluminium Co., with capital of \$8,000,000, to complete the hydro-electric plant and build aluminum works for utilizing the electricity. The Southern Aluminium Co. has its New York offices with the Banque Franco-Americaine at 45 Wall street.

### Developing Sand Hill Country.

Roger A. Derby of Jackson Springs, N. C., a Northerner who has been in the South about a year, writes to the MANUFACTURERS RECORD:

"This section of the country is the undeveloped pine barrens or sand hill district in Moore, Montgomery and Richmond counties of this State. It is now being developed very fast. I have a 2000-acre tract which I am clearing up and expect to have 600 acres under cultivation by next spring. I am using a Holt caterpillar traction engine with success on this light soil. I am constructing a 16x32-foot concrete silo with water tank on top, 100x34-foot cattle barn, and plan to feed Aberdeen Angus beef cattle and do general farming. This is the section where Leonard Tufts has done such fine work for good roads, and where the large Gore tract of land was sold the other day to Gates of New York. Land values are rising very fast here, and many good farmers are coming in from the more settled counties of the State. We need all the good farmers and capital we can get. This is a great peach country, and has done very well with both long and short staple cotton."

### To Interest Capital.

Secretary James H. Warburton of the Industrial Club of Salisbury, N. C., writes:

"I wish to say just a word regarding the MANUFACTURERS RECORD in the South. Your publication is certainly doing a good work. It is safe to say that it is the leader in developing the South. All commercial organizations should co-operate with you and back you up in all of your initiatives. What the South needs is capital. We have the water-power, we have the land and we have the climate. What more could we ask for? Let's see if there is not some way in which we can get the Northern capital and foreign capital actively interested in the South to such an extent that it will be the richest financially, as well as otherwise, of any country on the globe."

## GOOD ROADS

### WEEK'S HIGHWAY RECORD.

#### Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department, published elsewhere in this issue.]

#### Bonds Voted.

Abilene, Tex.—City voted \$30,000 bond issue to extend improved roads into city limits and connect with paved streets.

Dublin, Va.—Dublin Magisterial District voted \$100,000 bond issue for road construction.

Kenbridge, Va.—Lunenburg county voted \$40,000 bond issue for road improvement.

Onancock, Va.—Atlantic District, Accomac county, voted to expend \$50,000 on roads within next five years.

#### Bonds to Be Voted.

Bolton, Miss.—Hinds county will vote on \$100,000 bond issue for road construction.

Lexington, Ga.—Oglethorpe county votes August 21 on \$40,000 bond issue for road construction.

#### Contracts Awarded.

Baltimore, Md.—City awarded contract at \$96,522.50 to pave Park avenue, Lantvale street, etc.

Blakely, Ga.—City awarded contract for concrete sidewalks; 4000 yards or more.

Brunswick, Md.—City awarded contract at about \$16,000 to construct 5400 feet of asphalt paving.

Cullman, Ala.—Cullman Realty Co. awarded contract to construct 2000 yards sidewalks.

Mt. Sterling, Ky.—City awarded contract to pave streets with brick; 4700 square yards.

Opelika, Ala.—Lee county awarded contract to build road beginning at city limits and extending probably 4½ miles on Beulah road; \$8000 available.

Sherman, Tex.—Grayson county awarded contract at \$255,019.40 to construct 78 miles macadamized roads.

Westminster, Md.—State Roads Commission awarded contract at \$14,941.88 to construct section of State highway along Sam's Creek road, 1.50 miles, and at \$13,545 for section along Middleburg road, 1.53 miles.

Winchester, Ky.—City awarded contract at \$35,555 to pave Main street with brick.

#### Contracts to Be Awarded.

Baltimore, Md.—City receives bids August 14 to grade, curb and pave 5300 square yards.

Charleston, S. C.—City receives bids August 29 to construct 10,000 square yards brick and asphalt block paving.

Courtland, Ala.—Lawrence county receives bids August 12 for construction of about 10 miles water-bound macadam road.

Cullman, Ala.—Cullman county will macadamize two of principal public roads; expenditure \$8000.

Gonzales, Tex.—Gonzales county has \$150,000 available for constructing 75 to 100 miles of gravel or macadam roads in district No. 1.

Mobile, Ala.—Mobile county authorized building of Citronelle-Mt. Vernon road; length 14 miles.

Mobile, Ala.—Mobile county receives bids August 25 to construct five miles of road.

Okla. Miss.—Chickasaw county receives bids August 22 to construct proposed graded and gravel roads; 10 miles; about 30,000 cubic yards earth excavation; novaculite gravel.

Pensacola, Fla.—City receives bids Au-

gust 27 to construct 30,000 square feet concrete crosswalks.

Poplar Bluff, Mo.—City will pave 20 blocks, expending \$83,000.

Port Arthur, Tex.—City receives bids August 21 for proposed paving on Houston avenue and on Proctor street; specifications calling for wearing surface of vitrified brick, Texas sheet asphalt, creosoted wood blocks, asphaltic concrete or natural rock asphalt.

Taylor, Tex.—City receives bids August 12 to pave about 15 blocks of streets; material to be vitrified brick, sheet asphalt, bitulithic, concrete, creosoted wood block and asphaltic concrete.

### CAROLINA GOOD ROADS.

#### State Association's Convention at Charlotte.

[Special Cor. Manufacturers Record.]

Charlotte, N. C., August 2.

The annual convention of the North Carolina Good Roads Association closed today, after a two-day session, and after what was considered the most successful meeting so far held in the State, there being nearly 600 delegates registered from all parts of the State.

The convention endorsed a proposition that the Legislature be asked to appropriate \$1,000,000 annually for 20 years for the building of public highways, a State highway commission to have control of the expenditure of this money and to supervise all construction.

It was pointed out that large sums of money are being wasted each year by the present system of county road construction. It was suggested that all convicts who are fit for road work should be used in the construction of public roads under the supervision of the highway commission or the geological survey of North Carolina, their care and guarding to be under the supervision of the superintendent of the State prison, provided that it did not conflict with any present county or township system. The leasing of convicts to private corporations, such as railroads, etc., was disapproved of, and it was asked that, until there is a change in the present system, all profits derived by the penitentiary be used in the building of good roads.

It was resolved that a form of State aid be endorsed by which the State becomes security for county bonds issued for constructing good roads.

Interesting addresses were made covering practically all forms and style of road building, as well as the benefits to be derived by the use of wide tires in preference to narrow tires, the speakers including Mayor C. A. Bland, C. O. Kuester, W. M. Long, H. B. Varner, James A. Wellons, Dr. Joseph Hyde Pratt, Joseph G. Brown, W. S. Wilson, E. R. Preston, Congressman John H. Small, T. V. Howell, W. L. Spoon, W. S. Fallis, W. W. Crosby, M. H. Stacy, R. D. Douglas, J. A. Holmes, M. L. Willard, Fred N. Tate, A. G. Batchelder and W. A. Graham.

The officers elected were H. B. Varner, Lexington, president; Joseph Hyde Pratt, Chapel Hill, secretary; Joseph G. Brown, Raleigh, treasurer, and J. L. Patterson, Roanoke Rapids; R. L. May, Trenton; M. C. Winston, Selma; P. H. Hanes, Winston-Salem; P. M. Beard, Salisbury; F. M. Shannnonhouse, Charlotte; E. C. Chambers, Asheville; A. B. Skelding, Wilmington; H. E. Stacy, Roland; D. A. McDonald, Carthage, vice-presidents.

### Concrete Roads.

Wayne county, Michigan, plans, if sufficient materials can be obtained, to build about 40 miles of concrete roads this year.

and is planning to spend about \$2,000,000 on such roads, according to Road Commissioner Edward N. Hines of the county. In discussing before the recent meeting of the Association of the American Portland Cement Manufacturers the question of roads in his county, he said:

"After thoroughly investigating the subject, studying the experience of nearby smaller towns in the matter of concrete cross-walks, inspecting concrete bridge floors, and noting the general satisfaction concrete was giving in other forms of construction, the grades of material used, the light form of construction as applied to cross-walks and bridge floors, we decided that a concrete road would come more nearly realizing the ideal than other forms. The points considered as being in its favor were comparatively low first cost, low maintenance cost, freedom from dirt (there being no detritus from a concrete road in itself), its comparative noiselessness, ease of traction for vehicles of all descriptions, and the small crown necessary to get rid of surface water. We crown our roads but one-fourth of an inch to the foot, which tends to distribute the traffic over a greater area of road, instead of following a defined wagon track such as usually exists on macadam and like roads, and which later means the development of ruts.

"While we were reasonably sure of our ground, we also felt that in case we scored a partial failure we could use the concrete for foundation purposes. Three stretches of road, aggregating two miles on varying subsoils and with differing specifications, were decided upon. Woodward avenue was selected for the first test on account of the enormous and varying traffic it is called upon to carry. It is a continuation of the principal main paved retail street of Detroit, leading to the State fair grounds, Palmer Park, a popular playground, two large cemeteries, and to Oakland county, a rich farming section, whose hills and gravel roads combine to make a very popular and much-traveled automobile drive.

"The subsoil is of a gravelly nature. A specification was devised for a concrete road in two courses—the bottom course of a 1 : 2½ : 5 mix four inches deep, of limestone, and a top or wearing course of 1 : 2 : 3 mix of crushed cobblestone two and a half inches deep, the whole being laid in sections of 25 feet, with varying forms of expansion joints. No more than 20 minutes were allowed to elapse between the laying of the two courses, so that a true bond would be effected between the bottom and the wearing course. The metal was 17 feet 8 inches wide, with a minimum width between ditches of 24 feet. Suburban trolley tracks occupy one side of the road, which is drained by three inches land tile laid between the rails and the concrete and the other side by an open ditch.

"The second experimental road was built on a sandy foundation of a 1 : 2 : 4 mix of washed pebbles ranging in size from ¾ to 1½ inches and washed sand from ¼ to 0, built in one course 6 inches deep. The third stretch was built on clay, with specifications similar to the one used on Woodward-avenue road.

"In coping with the expansion we used several kinds of experimental joints. Two thicknesses of three-ply tar paper were used in some sections; a Southern pine board one-half inch wide was used in other sections; a composition of asphalt, still wax and pitch was tried in still other sections, and in still others the edges were protected by an angle iron embedded in the concrete, and the space between adjacent sections filled in with the above composition.

"These roads are starting on their

fourth year of wear, and, barring some longitudinal cracks, are as good as the day they were built, and practically nothing has been spent on their surface for maintenance. On the basis of three years' thorough trial, I stand committed to the use of concrete for country roads. I also believe concrete to be an ideal form of paving for village and city residence streets and alleys. This is not a statement born of enthusiasm on the spur of a moment, but a cold-blooded dollars and cents view, based on results attained and arrived at after careful consideration of all the facts available and experiences undergone."

#### North Carolina's Central Highway.

Chamber of Commerce,

Raleigh, N. C., August 6.

Editor *Manufacturers Record*:

President H. B. Varner of the Central Highway, which is to extend from the Tennessee line to Beaufort harbor, announces that the tour of inspection of this road, which is 461 miles in length, will begin at Waynesville, Haywood county, in the high mountain region, Monday morning, September 16, ending at Beaufort September 21. President Varner wishes Raleigh and the other towns and counties along the line to have automobiles in this tour and make it a great event. The first tour of inspection of the road was made between June 1-16 last year, starting at Beaufort and ending at Raleigh as the eastern section, and starting at Hot Springs and ending at Raleigh as the western and Piedmont sections. A vast amount of work has been done on this highway during the period since June, 1911, but there are yet some gaps, none of great length, however, and strenuous work will be done to bring the people who have failed to rise to the height of the situation to know what such a highway means. There are three delinquent counties which have been called but have failed so far.

FRED A. OLDS, Secretary.

#### To Develop Florida Marsh Land.

The Southern Land Securities Co., Bartow, Fla., writes to the *MANUFACTURERS RECORD* as follows:

"Lycurgus Burns of Anaheim, Cal., whose present address is Champaign, Ill., has purchased 20,000 acres of the richest marsh lands in the State of Florida from the Southern Land Securities Co. Mr. Burns will commence the drainage of his lands immediately, and will put it on the market as a sugar-cane and winter vegetable proposition. He will also establish an industrial town on the Atlantic Coast Line Railroad bordering his purchase."

*The Human Factor in Works Management.* By James Hartness, M.E. Published by the McGraw-Hill Book Co., New York. Cloth bound. 160 pages.

This book sets forth some of the essential principles of industrial economies. Special emphasis is laid on human work as regards both mental and physical employment. Particular attention is given to those methods that are the most favorable to the comfort and success not only of the men in the office or works, but the success of the organization and industry as a whole. Emphasis is also given to the value of habit, both as a present means and as one in which progress can most easily be made.

Part 1 of the book is largely devoted to this subject of the value of habit and its inertia. Part 2 treats of the non-technical phases of machine designing and machine building for profit. The subjects treated should prove of particular interest for study in connection with the more technical and direct treatises on the subject of scientific management.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

#### St. Louis & Western Plan.

Incorporation articles have been filed at Clayton, Mo., for the St. Louis & Western Traction Co. to build an electric railway through St. Louis county, beginning at the southwestern corner of Forest Park and running almost directly west to a point on the Missouri River opposite Weldon Springs, in St. Charles county, 25 miles. The capital stock is \$300,000, and J. D. Houseman of St. Louis is the principal shareholder. Others are Powell Johnson, Richard K. Papin, John Brennan, Jr., Matthew T. Chesnut, William R. Harrison and Charles F. Redman.

Mr. Houseman is reported saying that he has obtained the right of way, property and franchises of the St. Louis, Webster & Valley Park Railroad, which was promoted by Paul D. Cable of Maplewood, who was its principal stockholder. This line has already been graded as far as Kirkwood, and Mr. Houseman is further quoted as saying that as soon as the transfer is legally completed construction will begin and that his road can be put in operation as far as Kirkwood in three months. Other places to be connected are West End Heights, Brentwood, Glendale, Avondale, Des Peres, Valley Park, Manchester, Baldwin and Ellisville.

It is designed that the line will be not only an interurban giving service to several places which are now without such facilities, but will afford an entrance to St. Louis for the electric railway projected from there to Kansas City.

#### Darien to Brunswick, Ga.

Construction is now progressing satisfactorily on the extension of the Georgia Coast & Piedmont Railway from Darien to Brunswick, Ga., about 16 miles, according to a report quoting an official, and it is expected that the line will be completed in May next.

The Glynn County Construction Co. is doing the work, which is mostly light, but there are four miles of construction across the delta of the Altamaha River at Darien which demand the spanning of four branches of that stream. Two of them will be crossed by drawbridges with 100-foot clear spans, a third branch will have a deck girder span of 40 feet, and the other will have a pile trestle crossing. Steel superstructures on concrete piers and approaches will be used for the drawbridges; on the islands 4000 feet of frame trestling will be used and then filled in later.

It is expected that a steamship terminal will be constructed at Brunswick, where the railroad company has obtained an option upon about a mile of water-front property.

The work is under the supervision of J. H. Granbery, the chief engineer, at Darien, Ga.

#### New Equipment, Rails, Etc.

Seaboard Air Line has filed mortgage to secure equipment mortgage for \$2,300,581.42, covering 1000 box cars, 200 steel hopper cars, 10 steel passenger cars, each 70 feet long, 7 combination passenger and baggage cars, each 70 feet, 7 baggage and mail cars, each 70 feet, 25 cabooses, 20 locomotives, 2 wrecking cranes, 3 express cars and 6 dining-cars. First deliveries August 1. This equipment was ordered during the last two or three months, as previously reported from time to time.

Harriman Lines are in the market for 3000 freight cars.

Maryland & Pennsylvania Railroad has ordered a consolidation locomotive from the Baldwin Works, Philadelphia.

Southern Railway, it is reported, has ordered from the Lenoir (Tenn.) Car Works 450 box cars, 100 automobile cars and 100 flat cars.

Kansas City, Mexico & Orient Railway has ordered 15,000 tons of rails from the Pennsylvania Steel Co., Steelton, Pa.

Pennsylvania Lines West are reported about to purchase 1000 box cars.

Wabash Railroad will buy 20 Mikado locomotives.

Virginia Railway has placed its order for 700 steel hopper cars with the Pressed Steel Car Co., Pittsburgh. The road is still reported in the market for four passenger cars.

Dallas Southern Traction Co., Dallas, Tex., has received seven interurban electric motor cars from a Massachusetts builder.

Frisco system is reported getting prices on 10 all-steel baggage cars.

Baltimore & Ohio has ordered steel underframes and general repairs to 500 box cars at the American Car & Foundry Co.'s plant at Huntington, W. Va.

Southern Railway has filed an equipment mortgage covering cars and engines recently ordered thus: 30 Mikado locomotives, 15 Pacific locomotives, 20 steel-frame passenger cars, 5 all-steel mail and baggage cars, 5 all-steel baggage cars, 6 steel-frame dining-cars, 275 steel under-frame ventilated box cars, 150 steel under-frame automobile cars and 100 steel flat cars, the latter of 50 tons capacity and the box cars of 30 tons capacity.

#### Western Maryland Extension Open.

The Western Maryland Railway began operation August 1, according to previous announcement, of trains over its new extension of 87 miles between Cumberland, Md., and Connellsville, Pa. At present the new road is only used for freight service between those points and the company will not begin the operation of passenger trains for a month or two over the line. About 28 miles of the new construction is, however, being used by the Baltimore & Ohio Railroad for all its traffic moving between Cumberland and Pittsburgh, as previously reported, owing to the cave-in at Sand Patch tunnel on the B. & O.

The new line connects at Connellsville with the New York Central system, and provides a new trunk route between the East and the West. Several of the leading officials of the Western Maryland were on the first train out of Cumberland to witness the successful opening of the extension to through traffic.

#### Tifton to Atlantic.

The stockholders of the Americus, Tifton & Atlantic Railroad Co., which proposes to build about 110 miles of railroad in South Georgia from Americus to Milltown by way of Oakfield, Doles, Ashburn, Tifton and Nashville, with an ultimate view to making Jacksonville, Fla., the southern terminus, organized last week by electing I. W. Myers of Tifton, president; J. S. Shingler of Ashburn and L. G. Council of Americus, vice-presidents; John W. Greer of Tifton, secretary, and Fullwood & Skeen of Tifton, general counsel. The board of directors are H. H. Tift, chairman; I. W. Myers, Harold G. Council, G. R. Ellis, C. J. Champion, J. S. Shingler, J. L. Evans, A. W. Gaskins and M. C. Lee. The new railroad, whose general offices are to be at Tifton, has a route crossing eight counties of rich farming country and touching seven towns.

#### Dispatching Telephones Adopted.

The St. Louis Southwestern Railway Co. has adopted telephones for dispatching



trains. An order has been placed with the Western Electric Co. for the No. 101-B selector set, containing the standard Western Electric No. 50 type selector, and 24 way stations will be so equipped along the line from Jonesboro, Ark., to Illmo, Mo., nearly 140 miles. The dispatcher will be at Illmo.

Besides the telephone equipment, both signaling and talking, power equipment is to be furnished for generating the current to be used for signaling and talking. This consists of a single-phase motor direct connected to a direct-current generator, a power switchboard with accessories and 90 chloride accumulators. A wire chief's testing panel will also form a part of the equipment.

#### Extensions Projected.

Bird S. Coler of the firm of W. N. Coler & Co. of New York, who are interested in the Carolina & Yadkin River (formerly the Piedmont) Railroad, operating between Denton and Thomasville, N. C., 21 miles, is reported saying that an extension to Greensboro would be considered if proper inducements from that city are tendered.

Contract has been awarded for an extension of seven miles from Denton to High Rock, on the Winston-Salem Southbound Railroad, to connect with that line, Lane & Co. of Atlanta being the contractors. An extension from Thomasville to High Point, in the other direction, is contemplated. It is proposed to build the extensions and also to rebuild the existing road with 80-pound rails.

#### L. & N. Coal Fields Extension.

The Louisville & Nashville Railroad Co. is making good progress on the extension of its Lexington & Eastern Railway to the coal fields of Letcher county, Kentucky. W. E. Smith, superintendent of construction, says that track is now laid to a point 10 miles east of Hazard, Ky. The extension started at Jackson, and the following list of stations and the distances between them covers the new work finished up to this time: Jackson to Haddix, 6 miles; to Whick, 4.8 miles; to Corfo, 5.6 miles; to Krypton, 4.4 miles; to Tipo, 4.7 miles; to Copland, 4 miles; to Arthurcarry, 4.3 miles; to Chavies, 4.3 miles; to Yerkes, 5.2 miles; to Hazard, 5.3 miles.

The distance from Jackson to the proposed terminus in the coal fields, as heretofore stated, is about 90 miles.

#### Planned for Southern Maryland.

Mr. George R. Willis of Willis & Homer, Baltimore, who is one of the organizers of the Washington & Tidewater Railroad Co., informs the MANUFACTURERS RECORD that survey for the proposed route is now under way, and until completed definite information regarding plans of the company cannot be given. The original plan of the railroad, which was chartered in 1910, was to build a railroad from Washington, D. C., southeast to Point Lookout, Md., a distance of 72 miles. Others interested besides Mr. Willis are Henry Wyntkoop Peirson of Philadelphia; W. Bernard Duke, vice-president of the National Bank of Baltimore; Francis T. Homer, also of Baltimore; William Morgan Montgomery of Philadelphia.

#### Greensboro Northern & Atlantic.

Walter Washabaugh of Charlottesville, Va., who is chief engineer for the Greensboro, Northern & Atlantic Railway Co., writes that it proposes to build a line about 76 miles long from Greensboro, N. C., via Haw River to a junction with the Norfolk Southern Railroad through rolling country. Preliminary survey is in progress. The other end of the line will run to Danville and Lynchburg, Va. Connections

will be made with the Virginian Railway, the Chesapeake & Ohio, the Norfolk & Western, the Southern, the Seaboard and the Norfolk Southern railroads. T. O. Troy of Greensboro, N. C., is president, and J. W. Fry of the same city is vice-president and treasurer.

#### Macon, Dublin & Savannah.

J. T. Wright, vice-president and general manager Macon, Dublin & Savannah Railroad, writes the MANUFACTURERS RECORD confirming the report that the Railroad Commission of Georgia has authorized the issue of \$40,000 of additional bonds of this company. The proceeds from the sale of these bonds is to be applied to completion of work on hand, namely, that of building a bridge across the Ocmulgee River, three additional miles of track to connect the same, terminal property and freight depot, and to be applied to payment for 10 miles of 75-pound rail with which they will by degrees relay their track.

#### Not Ready for Wharves at Pensacola

W. H. Courtenay, chief engineer of the Louisville & Nashville Railroad, Louisville, Ky., telegraphs: "We are not taking bids on wharf and warehouse at Pensacola; it may be several years before these improvements are constructed."

This official statement disposes of reports and rumors current from time to time that the Louisville & Nashville would soon expend large sums at Pensacola in preparation for great increases of traffic in connection with the opening of the Panama Canal.

#### Atlantic Coast Line's Year.

The Atlantic Coast Line has issued a preliminary statement of earnings for June, and also for the fiscal year ended June 30. The figures for the year are: Total operating revenues \$33,463,557, increase \$1,841,108; operating expenses and taxes \$23,940,977, increase \$2,213,191; operating income \$9,522,579, decrease \$372,082. The figures for the month are: Total operating revenues \$2,527,819, increase \$195,686; operating expenses and taxes \$2,120,931, increase \$271,387; operating income \$406,888, decrease \$75,091.

#### Piedmont & Northern Progress.

The present status of construction on the Piedmont & Northern Lines, according to a report quoting an official, is that 23 miles of this electric railway are in operation in North Carolina between Charlotte and Gastonia, and 33 miles of track have been laid from Greenwood, S. C., northward toward Greenville. Contracts were lately awarded, as reported at the time, for 32 miles of line from Greenville to Spartanburg, S. C. Thomas B. Lee of Charlotte, N. C., is the chief engineer.

#### Shelbyville to Frankfort.

To acquire the right of way for the construction of an electric line from Shelbyville to Frankfort, Ky., a distance of 21 miles by way of the State pike, the Shelbyville & Frankfort Realty Co. has been incorporated with E. H. Taylor, Jr., president; R. D. Armstrong, vice-president; Kenner Taylor, treasurer; Ely Brown, secretary, and Roland Cox, chief engineer. The survey for this road has been made.

#### Plans a Bond Issue.

Stockholders of the San Benito & Rio Grande Valley Interurban Railway Co. are to meet October 2 to vote on a proposed \$10,000,000 bond issue. This is the prospect discussed at length in the MANUFACTURERS RECORD of August 1 looking to the construction of about 200 miles of railway gridironing the lower Rio Grande Valley.

#### Railroad Notes.

The Washington, Baltimore & Annapolis Electric Railway has acquired property in the rear of its freight terminals on Lombard street, between Eutaw and Howard streets, in Baltimore, and proposes to enlarge its yard facilities there so that it will have a terminal extending through from Lombard to Pratt street.

The Annapolis Short Line, operating an electric railway between Annapolis and Baltimore, Md., has issued a statement covering the 11 months from July 1, 1911, to June 1, 1912, showing a total revenue of \$224,404, as compared with \$189,993 for the corresponding period of the previous fiscal year.

The Union Terminal Co., which will construct the proposed new railroad station at Dallas, Tex., in which plan the Santa Fe, the Southern Pacific, the Rock Island and other lines entering there are interested, has elected officers thus: F. G. Pettibone, president; Thornwell Fay and W. A. Webb, vice-presidents; Murrell L. Buckner, secretary; R. P. Roach, treasurer. C. H. Dana has been appointed chief engineer, with headquarters at Dallas.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

#### Exports of Lumber.

In its annual review of the exports of lumber in this country the *Lumber Trade Journal* of New Orleans, commenting upon an increase of more than \$4,000,000 in the value of such exports, says:

"Taking the total figures, the comparison is a favorable one for the export trade, it appearing that the grand total for the year was valued at \$96,782,186, as compared with \$92,225,951 for the preceding year. The same holds good in the case of boards, deals and planks, joists and scantling, which is the most important item, constituting as to value more than half of the total, the comparison being 2,340,909,000 feet for the past year, as against 2,060,965,000 feet for the previous year. A decided falling off is noticed, however, in timber, the total of hewn and sawn being 438,021,000 feet, as compared with 531,634,000 feet the year before, leaving, however, a substantial increase in the combined figures for these measurement items.

"The principal interest, so far as any individual ports are concerned, centers in the four Gulf ports of New Orleans, Mobile, Pensacola and Gulfport, which combined constitute almost half of the total, and as to these the comparison is the reverse, showing that the principal increase in the figures for the entire country has come from other ports. The total figures for these items from these ports are as follows:

Gulfport, year just ended, 325,191,000 feet; previous year, 379,933,000 feet; decrease, 54,742,000 feet. Notwithstanding this great loss, however, Gulfport retains first place as to volume of shipments, it being borne in mind that these figures are for the customs district, which includes Pascagoula.

"Pensacola, last year, 287,961,000 feet; preceding year, 276,904,000 feet; increase, 10,057,000 feet. With this increase Pensacola ranks second instead of third in volume as it was during the year 1910-11.

"New Orleans, 274,612,000 feet for last year, as against 264,986,000 feet the year before, an increase of 9,626,000 feet, which puts it in third place instead of fourth.

"Mobile, last year, 272,065,000 feet;

year before, 316,007,000 feet, a loss of 10,057,000 feet and a drop from second place to fourth.

"As regards countries of destination, the decrease in timber shipments is a uniform one, a falling off being noted to every destination, and this conclusion is apparently not affected by the fact that as to Argentina the comparison is made with the figures for all of South America for the previous year.

"In boards, deals, planks, joists and scantling a notable increase is in the figures to Canada, a gain of 49,736,000 feet over the 403,285,000 feet of the previous year. The most striking feature of the comparison, however, is the shipments to South America, the figures as to which are as follows: Argentina, 1911-12, 325,525,000 feet; 1910-11, 262,806,000 feet; increase, 62,719,000 feet. Brazil, 1911-12, 59,866,000 feet; 1910-11, 42,586,000 feet; increase, 17,280,000 feet. Other South America, 1911-12, 173,455,000 feet; 1910-11, 113,681,000 feet; increase, 59,774,000 feet. Total increase, 139,683,000 feet.

"The next in importance is British Oceania, which went from 186,368,000 to 218,431,000 feet, or a gain of 31,937,000 feet. This presumably was almost entirely from the Pacific Coast, and another item in that connection is the Philippine Islands, where an increase was made of 6,444,000 feet, or from 17,778,000 to 24,222,000. On the other hand, a falling off of the shipments to China from 91,613,000 to 33,668,000 feet, or a loss of 57,945,000 feet, makes a substantial decrease to what may be called the peculiar territory of the Pacific Coast. Other gains are: Netherlands, from 81,284,000 to 102,012,000 feet, an increase of 20,728,000; United Kingdom, from 216,433,000 to 226,537,000 feet, a gain of 10,104,000; West Indies and Bermuda, from 45,322,000 to 45,849,000 feet, a gain of 527,000; and other countries, from 25,027,000 to 34,883,000 feet, a gain of 9,856,000.

"The decreases are less in number, and, outside of China, none of them of so great magnitude. The largest is in shipments to Africa, which dropped from 40,216,000 to 30,215,000, a loss of 10,001,000 feet, followed by Cuba, which went from 131,771,000 to 122,846,000, a falling off of 8,925,000. Then come 'other Europe,' with 37,240,000 and 32,214,000, a loss of 5,026,000; Italy, 41,215,000 and 35,397,000, a decrease of 5,818,000; Belgium, from 69,436,000 to 64,790,000, a loss of 4,646,000 feet; France, with a decrease of 3,758,000, or from 28,362,000 to 24,604,000; and Germany, which dropped 2,983,000 feet, or from 77,051,000 to 74,068,000.

"Many other interesting comparisons may be drawn from the figures which the limits of this article do not permit to be dwelt upon at length. The most interesting feature to the Southern exporters is the fact that so far at least as volume of shipments is concerned they have not maintained their old lead, and that other ports have not only secured all the increase in the total export business of the country, but have taken away 67,419,000 feet of timber and lumber from the Gulf. In view of the difficulties besetting shipments from the Gulf during almost the whole of the year just closed this will not be surprising, but it still remains that the four large Gulf ports still retain undisputed their commanding position in the export trade."

#### Southern Building in July.

Building operations in Southern and Southwestern cities during July show good increases in nearly all localities as compared with previous months. In Richmond a total of 50 permits was issued for new structures, representing a value of

\$1,238,645, and 76 permits for alterations and repairs, representing a value of \$95,451. A total of 246 permits was issued in Birmingham during the month, representing a cost of construction of \$422,538. As compared with July, 1911, these figures show an increase of approximately \$125,000. Permits were issued in Atlanta for construction estimated to cost \$1,038,561, an increase of about \$500,000 as compared with July, 1911. The estimated cost of construction for which permits were issued in Augusta during the month was \$92,435. In Greenville, S. C., a total of 55 permits was issued during the month, representing a cost of construction of \$71,325. Permits were issued in Jacksonville to the number of 95, representing a cost of construction of \$259,865. In Tampa a total of 117 permits was issued, representing a cost of construction of \$74,320. The total for 12 months ended July 21 amounted to \$1,581,919.80. Building operations in Knoxville for the month aggregated \$45,400. In Louisville the cost of construction for which permits were issued was estimated at \$1,060,000. As compared with 1911, these figures show an increase of about \$445,000. A total of 37 permits was issued in Winston-Salem during the month, representing a cost of construction of \$86,040. In Macon the cost of construction for which permits were issued was estimated at \$83,875. Permits were issued in Shreveport during the month for construction estimated at \$119,569, an increase as compared with July, 1911, of about \$40,000. The total estimated cost of new buildings, alterations and repairs for which permits were issued in St. Louis during the month was \$1,724,665. As compared with July, 1911, these figures show an increase of \$364,599. The aggregate cost of construction for which permits were issued in Houston during the month was estimated at \$684,450, an increase of about \$125,000 as compared with July, 1911. A total of 60 permits was issued in Galveston, representing a cost of construction of \$27,912. The cost of construction for which permits were issued in Tulsa was estimated at \$104,200, an increase of about \$9000 as compared with June. In Kansas City, Mo., a total of 360 permits was issued, representing a cost of construction of \$884,396. As compared with the corresponding month last year, these figures show an increase of \$128,500. A total of 80 permits was issued in Little Rock during the month, representing a cost of construction of \$148,073. The aggregate cost of construction for which permits were issued in Baltimore during the month, including new buildings, alterations and additions, was estimated at \$907,367.

#### Florida Plantations Co.

The Florida Plantations Co., Fellsmeere, Fla., has been incorporated with \$1,000,000 capital stock and the following officers: President, E. G. Vans Agnew; vice-presidents, E. H. Every and P. A. Vans Agnew; treasurer, Arthur E. Donegan; secretary, W. B. Crawford; all of Kissimmee, Fla. Mr. Donegan wires the MANUFACTURERS RECORD:

"Plans not yet matured; company backed by New York capital; has considerable acreage in St. Lucie county; will probably develop by extensive drainage system."

The McIntosh Mills, Newnan, Ga., has completed plans to install electrical equipment and awarded contract to the General Electric Co. of Schenectady, N. Y. This machinery includes 17 motors of 5 to 100 horse-power, three 200 and two 15 kva transformers, etc. The company was previously mentioned as to add to its spinning equipment.

## TEXTILES

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

#### New England Mill Men.

At the semi-annual meeting of the National Association of Cotton Manufacturers, to be held near New London, Conn., September 9-12, the program will include papers on cotton growing in India, cotton shipments and reclamations, dustproof and waterproof mill flooring, economic use of lubricating oils, humidifiers, international tariff relations, lithographic method of cotton printing, present-day relations between the foreign-born operative and the mill management, raising cotton in California, selection of sites of cotton mills, spinning values of different grades of cotton, tape driving for spindles, wastes in cotton manufacture and workmen's compensation laws in the United States.

#### Adding to Equipment.

The Denison (Tex.) Cotton Mill Co. is installing 2000 spindles, 50 30-inch looms, etc., and replacing old card machinery with 40-inch cards, at a cost of \$26,000. This company has been operating 12,144 spindles and 270 looms, and its additions will increase daily capacity to 12,000 pounds per day of sheeting, duck, drills and yarn.

#### Will Add 10,000 Spindles.

The Brandon Mills, Greenville, S. C., has increased capital stock from \$1,000,000 to \$1,500,000. The company will add 10,000 spindles and 200 looms, for which there is space in its buildings, and has awarded the contract. This will increase the Brandon equipment to 90,000 spindles and 2200 looms.

#### Big Increase of Capital.

The Union-Buffalo Mills Co., Union, S. C., will hold a stockholders' meeting on August 20 in its office at 409 Broome street, New York, to vote on increasing capital stock from \$7,000,000 to \$8,500,000.

#### Waukesha Mills.

The Waukesha Mills, Cedartown, Ga., has been incorporated with \$25,000 capital stock by L. S. Ledbetter and E. C. Benton of Cedartown, L. O. Benton and Eugene Benton of Monticello, Ga.

#### Textile Notes.

The Riverside Mills, Augusta, Ga., will erect an additional building costing \$17,000. This company was recently reported as to make improvements.

The Paulding Cotton Manufacturing Co., Dallas, Ga., contemplates adding 5000 spindles. It now has 10,143 spindles and accompanying equipment for hosiery yarn production.

The Albany (Ga.) Cotton Mills, reported incorporated last week with \$110,000 capital stock, is being formed to take over the Albany Cotton Mills under a reorganization plan.

The Deep River Mills, Randleman, N. C., contemplates adding 100 looms, and will build an electric power plant costing \$60,000 for its three plants. Contracts for power plant have been awarded.

The Rosemary Manufacturing Co., Roanoke Rapids, N. C., has decided to build its additional mill mentioned last week, and will have the plans ready by September 1. It is proceeding with the enlargements referred to last week.

## MECHANICAL

#### The Sectional Revolving Nail Bin.

The line of sectional revolving devices which are designed to furnish a convenient method of display of retail stock and to give easy access and permit speed and assorting and weighing the contents, as well as to give a decided air of being up to date, is manufactured by the Eclipse Manufacturing Co., Wellston, O. The accompanying illustration shows the sectional revolving nail bin, which forms one of this line. These bins are used not only to hold nails, but screws, bolts, hinges,



SECTIONAL REVOLVING BIN.

and even horseshoes are displayed in them.

This nail bin is composed of five sections, and each section has five divisions, thus allowing for 25 different sizes of nails to be carried in a very compact way. Each division or bin will hold 140 pounds of nails or over, so that one outfit will carry a variety of stock and a large quantity of each size. Its convenience is apparent, and particularly so when the customer buys an assortment of sizes.

The scale shown in the illustration is also supplied when desired. It is so adjusted as to hang immediately on the level of the particular bin from which nails are being taken.

Each section is independent of the other in its revolutions. Each is hung on steel balls, so that when the five compartments of a section are loaded to their combined capacity of 700 pounds they still revolve easily and quietly. The sections are made of sheet steel. The center column or stem is a steel bar, molded solidly into the base.

The Eclipse company has published 20 commendatory letters, with a complete description of the nail bin, contained in catalogue No. 1, which will be mailed on request.

#### Wizard Tubular Magnets.

The past few years have demonstrated the efficiency and economy of gas and gasoline engines as motive power for manufactures. The question of supplying the right kind of spark for igniting the charges has been one of the difficult problems to solve. Gas engine experts, after exhaustive experiments, recognize the advantage of the magneto as a source of spark supply.

The accompanying illustration shows the "Wizard" tubular magneto, manufactured by the Hercules Electric Co. of Indianapolis, for use with stationary and marine engines. It is described as reliable, efficient and durable. The magnets are made of a special grade of magnetic steel, possessing the property of not only absorbing a powerful charge of magnetism, but of retaining it at a uniform strength. The armature is of the laminated disc type. The coils are securely embedded and then baked with a strong waterproof

composition which thoroughly protects the wires from moisture.

The commutator is massive and constructed of special tempered copper, the texture of which is very tough and slow to wear. The bearings are of bronze composition, possessing high anti-friction qualities. They are of an extreme length, being four times the diameter of the journals. The armature is thoroughly enclosed in a waterproof brass tube, which prevents the entrance of dust or water. The fact that the Wizard tubular magneto is moisture-proof is of importance, and this feature is highly appreciated, especially for marine use. It is stated that launch owners have had these machines submerged and after bailing out the water were able to readily start the engine.

These magnetos are equipped with friction governor drive, plain round or flat belt pulley, or belt governing pulley. The standard friction governing drive consists of a leather face friction pulley either shaped like a bevel gear or flat face, so keyed to the shaft that it slides freely. It is held in contact with the rim of the drive wheel of the engine by two arms having balls on each end, and controlled by two spiral springs which hold the pulley firmly against the drive wheel. The advantages claimed for this are that a pure rolling motion is obtained, without any tendency to grind, and the few wearing parts insure good lasting results. It is so arranged that it can be adjusted to the required pressure as in case of greasy or wet flywheels, or to take up any inequalities of the flywheels.

These magnetos give a direct current.



WIZARD TUBULAR MAGNETO.

and may be run in either direction. They are made in both jump spark and "make-and-break" types. A pamphlet recently issued by the company describing the magnetos for stationary and marine engines and also another pamphlet describing the "Star" magneto, for use on automobiles, will be sent on request to the company. Directions for their installation and care are included.

Electrical Injuries—Their Causation, Prevention and Treatment. By Charles A. Lauffer, A.M., M.D. Medical Director, Relief Department, Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa. Published by John Wiley & Sons, New York. Seventy-seven pages. Cloth bound. Price 50 cents.

This book is designed for the use of practical electrical men and others who may be brought in contact with the electrical industry in such a way that they may be able to render aid in case of accidents from electrical shock. By prompt action in applying the methods of resuscitation many lives have been saved, and it is found that efficient service may be rendered in such emergencies by men who have studied or practiced methods of resuscitation. The whole subject and the causes and symptoms of the different kinds of electrical burns and shocks and the treatment of each is covered in the first part of the book. The rules for artificial respiration are laid down fully and the advantages of this treatment are stated. A chapter is devoted to minor surgery and first aid, ordinary accidents and wounds.



# Construction Department

## TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "It is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

### BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—Southern Railway (B. Herman, chief engineer, Washington, D. C.), Illinois Central Railroad (A. S. Baldwin, chief engineer, Chicago, Ill.) and Birmingham Belt Railroad (J. H. Dougherty, general manager, Birmingham) are prepared to begin construction of proposed viaduct at Twelfth Ave. in Norwood.

Ala., Tuscaloosa.—Tuscaloosa county will construct bridge across Warrior River. Address County Commissioners.

Ark., Ashdown.—Little River county will construct bridge at Mills' Ferry between Little River and Sevier counties; Frank M. Blaisdell, engineer, Southern Trust Bldg., Little Rock, Ark.; N. A. George, Little River County Judge, Ashdown, and A. L. Tribble, Sevier County Judge, DeQueen, Ark., will award contract at courthouse, Ashdown, at 19 A. M. August 30.

Ark., Pine Bluff.—Jefferson County Commissioners awarded contract to J. P. McNulty of Pine Bluff to construct three concrete bridges on Little Rock Rd. and to repair concrete bridge; cost \$3000; C. M. Philpot, County Judge.

Fla., Daytona.—Sholtz & Atkinson awarded contract to Pan-American Engineering Co., G. M. Barr, general manager, Winston-Salem, N. C., to construct bridge to connect city with Daytona Beach; reinforced concrete; half mile long, 30 feet wide; drawbridge with 150-foot swing; D. D. & C. M. Rogers of Daytona are engineers. (Call for bids lately noted.)

Ga., Albany.—Georgia Southwestern & Gulf Railway, W. M. Legg, general manager, will construct steel bridge 400 feet long and two others of 60 feet each.

Ga., Athens.—Clarke county will construct steel bridge, 120-foot span and 16 feet wide, and two steel girder frame bridges, span 43 feet and 46 feet, and width 16 feet; Commissioners of Roads and Revenues receive bids until August 21; also receive bids for miscellaneous beams for widening roadway of present bridges, steel angle railing for open wood bridges and steel angle railing for abutment approaches to sundry bridges; latter items will aggregate 50,000 pounds of fabricated steel members; C. M. Strahan, County Engineer.

Ga., Cartersville.—Bartow county will construct steel bridge with concrete substructure at McMichen bridge over Ross Creek; steel span 85 feet long, steel approach 50 feet long, 12-foot roadway, concrete piers, abutments and pedestals; steel bridge on Pettit's Creek, steel span 48 feet long, steel approaches 120 feet long, concrete piers, abutments and pedestals, roadway 16 feet wide; bridge over Salacua Creek, steel span 50 feet long, steel approaches 34 feet long, concrete piers, abutments and pedestals, 12-foot roadway; County Commissioners receive bids until August 7; G. A. Veach, chairman.

Ga., Lexington.—Oglethorpe county votes August 21 on \$10,000 bond issue for bridge repairing and construction; W. J. Knox, Commissioner Roads and Revenues.

Ga., Macon.—Macon, Dublin & Savannah Railroad, J. T. Wright, general manager, will build bridge across Oknawgee River.

Ky., Shelbyville.—Shelbyville & Frankfort Realty Co., E. H. Taylor, president, Shelbyville, will construct three large and four small bridges.

N. C., Winston-Salem.—Salem Board of

W. Va., Lumberport.—Harrison County Commissioners, Clarksburg, W. Va., and Baltimore & Ohio Railroad (F. L. Stuart, chief engineer, Charles and Baltimore Sts., Baltimore, Md.) agree to construct overhead bridge over crossings of railroad at Lumberport and extending structure over West Fork River.

### CANNING AND PACKING PLANTS

Fla., Apalachicola.—Bay City Packing Co., Joseph Messina, owner, awarded contract to D. B. Maddox, Apalachicola, to enlarge packing plant; improvements include three buildings, 30x75 feet, 37x80 feet and 17x80 feet; two stories; also construct new docks, 142 feet long; fireproof construction; machinery contracts closed; daily capacity 250 cans of oysters, sweet potatoes and schrimp. (Recently noted.)

Fla., Chubb (not a postoffice).—J. R. Wemble of Apopka, Fla., has contract to install packing plant at Chubb.

Fla., Miami.—Winfield & Elliott Packing Co., T. A. Winfield, president (recently reported incorporated with \$5000 capital stock), has mainly purchased equipment for plant previously reported leased; daily capacity, two to four cars of grapefruit, oranges, etc. (See "Machinery Wanted.")

Ga., Savannah.—Sulzberger & Sons Company (main office, 45th St. and First Ave., New York) will enlarge plant on W. Broad St.; add smokehouse, sausage factory and refrigerating plant; latter with capacity of 15 to 25 tons; also enlarge beef cooler, providing separate compartments for lamb, beef, hotel meats and pork products; C. A. Hartman is local manager.

Md., Baltimore.—Platt & Co. (Boyle and Clement Sts.), capital stock \$125,000, incorporated by William D. Platt, James B. Platt and Harry Wells; has plant.

in Leslie county; will organize and install mining plant.

Kentucky.—John E. Golden, Barbourville, Ky., purchased coal lands in Clay and Leslie counties; hold for future development.

Ky., Middlesboro.—Hignite Coal Co. will install about \$25,000 worth of machinery to double output of mines; will equip mines with electric haulage, motors, coal-cutting machines and washer; present capacity 5000 to 8000 tons per month; contract for machinery awarded.

Ky., Fourmile.—Magnet Coal Co. will develop 175 acres of coal property; J. N. Sharp, president; I. Glickman, vice-president; J. C. Haskins, treasurer; J. C. Morgan, secretary. (Recently noted incorporated with \$25,000 capital stock at Pineville, Ky.)

Md., Cumberland.—F. Mertens' Sons purchased coal land in George's Creek field and will develop.

### COTTON COMPRESSES AND GINS

Okla., Ada.—Pontotoc Custom Gin, capital \$10,000, incorporated by J. B. Stewart, A. M. Adams, J. R. Floyd, J. R. Revel, W. W. Daggis, T. M. Rushing and Homer Williams.

Okla., Fort Gibson.—Fort Gibson Gin & Milling Co., capital \$5000, incorporated by Connel Rogers, J. W. Burnett, R. E. Coleman, John B. Smith and William Brown.

S. C., Hartsville.—V. R. Erlebe is interested in establishing compress with annual capacity 25,000 to 30,000 bales cotton. (See "Machinery Wanted.")

Tenn., Humboldt.—Roberts Cotton Oil Co., Memphis, Tenn., will build cotton gin; J. B. Short will be manager.

Tex., Austin.—D. T. Igglehart, secretary-treasurer Elgin Compress Co., recently noted incorporated, states plant is completed and equipment installed; daily capacity 1000 to 1500 bales.

### COTTONSEED-OIL MILLS

Ky., Louisville.—Cottonseed Products Co. (recently noted incorporated, capital stock \$50,000, by E. Rice, Dyersburg, Tenn., and others) purchased oil mill of Louisville Cottonseed Products Co.; will rebuild recently burned seedhouse, erecting 60x226-foot structure; A. J. Biggs of Dyersburg, contractor in charge.

Tex., Sulphur Springs.—People's Cotton Oil Mill placed contract for complete 60-ton cottonseed oil mill.

### DRAINAGE AND IRRIGATION

Ark., Little Rock.—Fourche Drainage District, W. M. Kavanaugh, president, will excavate main canal and construct levees and concrete culverts; bids received until 3 P. M. August 29; main canal eight miles; north and south levees, also eight miles each; secondary canal six miles; Lund & Hill, engineers, 201½ W. 2d St., Little Rock; Warren E. Lenon, secretary of the drainage district; this work previously noted. (See "Machinery Wanted.")

Ark., Wilson.—Golden Lake Drainage District No. 11 awarded contract to Canal Construction Co. of Chicago, Ill., to construct drainage canal; length 40 miles.

Fla., Bartow.—Lycurgus Burns of Anaheim, Cal. (present address Champaign, Ill.), will drain lands. (See "Land Developments.")

La., Alexandria.—Welman Bradford, drainage engineer, Harrett Bldg., has submitted plan for extensive drainage proposition, etc.; proposes to construct canal from Red River, near Natchitoches into Teche and Mermen-tau rivers and Intercoastal canal near Lake Charles; operate large lines and trolley system, develop water-power, etc., on canal and irrigate 1,000,000 acres semi-alkali prairie land; canal to be 25 to 300 feet wide and 25 feet deep; contemplates constructing hydro-electric plant to develop 30,000 horsepower at several locations; entire plan involves four or five years' work and expenditure of \$15,000,000; dispatch states financial arrangements are being completed. John C. Calhoun and Elmer L. Corthell, drainage engineer, of New York, bring among those interested. (Lately and previously mentioned.)

La., Jennings.—Rose Marsh Drainage District organized; awarded contract for dredging canal to Coxner-Zigler Company of Jennings; cost \$25,000.

La., Lake Arthur.—Keystone Drainage District voted \$20,000 bond issue to construct drainage system; district embraces about 3500 acres. (Previously mentioned.)

### PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

PUBLISHED ON PAGES 78 and 79

In order to secure best bids from leading engineers, contractors and investment houses, the proposal advertising columns of the Manufacturers Record are invaluable.

Rate 20 cents per line per issue.

When Proposal Advertisements cannot be sent by mail in time to secure insertion before date for opening bids, please wire advertisement copy collect by Day Letter

Proposal Advertising forms close Wednesday, 10 A. M.

Commissioners approved plans for 20-foot steel bridge over Southbound Railway extension of Bank St.; width 20 feet, permitting of driveway on either side.

N. C., Winston-Salem.—Winston-Salem Southbound Railway, W. N. Royall, general manager, Wilmington, N. C., will construct bridge across Salem Creek; length 150 feet; two piers.

Mo., Carthage.—Jasper County Court instructed County Surveyor Kohlman to prepare plans for bridge over Spring River at Carthage; will prepare two plans, one for pony truss structure and other for concrete arch; present abutments will be utilized in either case, making main span 80 feet; approach on either side will have 40-foot span; 20-foot roadway.

Okla., Purcell.—McClain county voted on \$20,000 bond issue for bridge purposes. Address County Commissioners.

S. C., Anderson.—Blue Ridge Railway, J. R. Anderson, superintendent, awarded contract to American Bridge Co., 31 Church St., New York, at \$60,000 to build steel bridge over Twenty-six Mile Creek to replace burned structure; 200 feet long and 110 feet above low water level of creek. (Recently mentioned.)

Tenn., Chattanooga.—Hamilton county will construct two concrete bridges on Dry Valley Rd.; Public Road Commissioners, G. Russell Brown, chairman, 30 Municipal Bldg., receive bids until August 20. (See "Machinery Wanted.")

Tex., Fowlerton.—La Salle county will construct steel highway bridge over Frio River; 56-foot span; 18-foot roadway; reinforced concrete piers; timber trestle approaches; W. H. Sylvester, engineer, Cotulla, Tex.; C. C. Thomas, County Judge, Cotulla. (See "Machinery Wanted.")

### CLAYWORKING PLANTS

Ark., Little Rock.—Bricks.—Arkansas Brick Manufacturing Co. increased capital stock from \$100,000 to \$150,000.

S. C., Pendleton.—Bricks.—Harmon Brick Co., capital \$12,000, incorporated; T. J. Harmon, president; S. T. Buchanan, vice-president; John A. Hudgens, secretary and treasurer.

### COAL MINES AND COKE OVENS

Ala., Lim Rock.—Pierce Coal & Lumber Co. organized with F. D. Pierce, president; R. W. Pierce, treasurer; V. Mott Pierce, vice-president; J. H. Morey, secretary, all of Bridgeport, Ala.; will develop coal mine.

Ky., Barbourville.—Hughes-Jellico Coal Co. organized by A. M. Decker, P. D. Black, Robert Cornett and M. J. Moss; purchased plant of old Hughes-Jellico Company in Ely Hollow district, Knox county; no present changes contemplated.

Ky., Barbourville.—Diamond-Jellico Coal Co. organized by Toledo (O.) capitalists; R. St. John, manager; offices, Corbin, Ky.; leased plant of Tunnel-Jellico Coal Co. of Barbourville; plant located in Roseland district of Knox county; reported to make additions and increase capacity of plant.

Ky., Knox County.—Knox County Coal Co., Frank P. James, president, purchased several thousand acres undeveloped lands on Poplar Creek from John E. Golden of Barbourville, vice-president of the company; reported price \$250,000. (Recently noted incorporated, \$250,000 capital stock, to purchase and lease lands.)

Ky., Leslie County.—W. C. Black, Barbourville, Ky., and H. B. Jones and Harry Bullock of Pineville, Ky., purchased coal lands

La., Lake Charles.—Keystone Drainage District authorized \$20,000 bond issue to construct drainage system; district comprises 12,000 acres. Address District Commissioners.

La., Vinton.—Vinton Drainage District has had surveys made by Frank Shutts, civil engineer, preparatory to construction of drainage system to reclaim 65,000 acres. (Previously mentioned.)

North Carolina.—Carolina Drainage Co. capital stock \$500,000, incorporated by J. H. Randolph, J. O. Tryon and E. A. Burlank of New York.

Miss., Greenville.—Black Bayou Drainage District organized to drain lands west of Deer Creek, comprising 110,000 to 120,000 acres; main canals to be Black Bayou, Swan Lake, etc.

Tex., Big Wells.—Littlejohn Irrigation Co., capital stock \$100,500, incorporated by W. E. Littlejohn of Shreveport, La.; William McMurray and Otto S. Dowling of Big Wells.

Tex., Gonzales.—J. H. Clark of Victoria, Tex., contemplates constructing dam on Guadalupe River, five miles from Gonzales; proposed reservoir with capacity of 4,000,000 cubic feet of water for irrigating 100,000 acres land.

Tex., Laredo.—J. P. Cranke and associates contemplates incorporating company with \$250,000 capital stock to construct system for irrigating 640 acres land, about three miles from Rio Grande.

Tex., Mission.—Star Land Co., A. J. McColl, president, San Antonio, Tex., purchased about 10,000 acres in Hidalgo county, all subject to irrigation; will develop.

Tex., San Benito.—Spears & Morrison, attorneys, advise that Cameron County Drainage District No. 3 will drain about 100,000 acres land for irrigated farms; 41 drainage ditches aggregating about 143 miles in length, 2,400,000 cubic yards earth excavation, with sundry bridges and culverts; cost about \$400,000; no pumping plants required; bids opened noon September 3; \$450,000 of bonds issued; district includes towns of San Benito, La Paloma, Los Indios, Rio Hondo and Annulla; previously noted. (See "Machinery Wanted.")

#### ELECTRIC PLANTS

Ala., Tuskegee.—Tuskegee Normal and Industrial Institute rejected bids for construction of central power plant and will invite new proposals; 112x203-foot power-house and coal bunker; W. G. Franz, Union Trust Bldg., Cincinnati, O., is consulting engineer.

Ark., Tuckerman.—City engaged Richard C. Huston, 630 Exchange Bldg., Memphis, Tenn., to prepare plans for water-works and electric-light plant. (Previously noted.)

Fla., Hastings.—Hastings Cold Storage Co., F. E. Bugbee, president, will increase capital stock from \$20,000 to \$40,000; will construct electric-light system; erect office building and use present office as dynamo-room; erect boiler-house on rear of site and install additional boiler of sufficient capacity to operate both cold-storage and electric-light plants. (Mr. Bugbee recently stated to erect electric-light plant costing \$10,000.)

Fla., New Smyrna.—John T. Hammond will erect electric-light plant.

Ga., Augusta.—Augusta-Aiken Railway & Electric Corporation will improve old power plant; install new switchboards and rebuild number of machines.

Ga., Douglas.—City will make improvements to water and light plant. (See "Water-works.")

Ga., Eatonton.—City employed Solomon-Norcross Company, Atlanta, Ga., to design electric-light and power plant recently noted under consideration.

Ga., Swainsboro.—City purchased site on which to build electric-light plant; J. B. McCrary Company of Atlanta, Ga., will be in charge of engineering work.

Ky., Taylorsville.—Town granted electric-light franchise to Henry Bros. of Taylorsville; will install power plant. (Recently mentioned.)

Mo., Hopkins.—Richard Kuchs, president Maryville Electric Light & Power Co., Maryville, Mo., is promoting organization of company to construct electric-light system; proposes to transmit power from Maryville plant and furnish power to Hopkins and Pickering, Mo.

Mo., Sedalia.—City Light & Traction is name of company recently reported to be incorporated by C. E. Murray, R. A. McGregor and J. E. Harsh; will succeed Sedalia Light & Traction Co.

N. C., Kernersville.—T. L. Hall petitioned Board of Aldermen for franchise to construct electric-light plant.

Okla., Hinton.—Kennedy & Fleming of

Oklahoma City, Okla., are preparing preliminary plans for electric-light plant.

Okla., Hooper.—City contemplates \$20,000 bond issue for installation of electric-light system. Address The Mayor.

Okla., Skiatook.—City, A. W. Lucas, Mayor, will construct electric-light system; \$2000 bond issue recently noted voted.

Tex., Cooper.—Delta Electric Manufacturing Co., R. J. Thomas, president, will make alteration to plant; 150 horse-power; cost \$15,000; equipment purchased. (Recently noted incorporated with \$15,000 capital stock.)

Tex., Dallas.—Leon Taylor, city electrician, estimate cost of constructing electric-light plant at \$773,350. (Recently mentioned.)

Tex., Cumbly.—Cumbly Electric Light Co. will open construction bids in the fall for construction of 40-horse-power gasoline-operated plant; cost \$5000; G. M. Morton, Mayor; franchise recently noted. (See "Machinery Wanted.")

W. Va., Grafton.—City Council rejected bids for construction of electric-light and water plant and will invite new proposals; appropriation \$80,000; engineer, Riggs & Sherman Company, Toledo, O.; W. C. Hanway, City Clerk. (Call for bids lately noted.)

W. Va., Wayne.—Wayne Light, Heat & Water Co. (recently noted incorporated) will not operate electric plant; supply natural gas. (See "Gas and Oil Developments.")

#### FERTILIZER FACTORIES

Ga., Macon.—Cherokee Fertilizer Co. will improve plant and double capacity; extend main building 100 feet; install additional equipment.

N. C., Washington.—Washington Lime Co. will manufacture agricultural lime; erect frame building; G. A. Stancell, president; W. B. Dawson, vice-president; J. D. Armstrong, secretary-treasurer. (Recently noted incorporated with \$50,000 capital stock.)

#### FLOUR, FEED AND MEAL MILLS

N. C., Mocksville.—J. P. Green Milling Co. (recently noted incorporated with \$25,000 capital stock), elected J. P. Green president, M. F. Booe secretary, T. P. Foster manager; will operate flour and meal mill; daily capacity, 50 pounds flour and 100 bushels meal; has building; cost of machinery (mainly purchased), \$3000. (See "Machinery Wanted.")

#### FOUNDRY AND MACHINE PLANTS

Fla., Jacksonville.—Irrigation Equipment.—J. P. Campbell, 218 E. Bay St., will establish plant to manufacture sprinkling device for irrigation.

Mo., St. Louis.—Engines.—Busch-Sulzer Bros.-Diesel Engine Co., Daller Edwards, manager publicity department, advises Manufacturers Record that previously-noted plant for building of Diesel oil engines will cost \$500,000 without mechanical equipment; buildings of reinforced concrete, steel and brick construction; 100,000 square feet; hot-water heat, Evans Alunral system, costing \$30,000; electric lighting, costing \$30,000; concrete, gravel-covered roofing; freight and passenger electric elevators, costing \$7500; plans by Arnold & Co., St. Louis; construction by subcontractors, under supervision of company; building and grounds to occupy space of two city blocks, allowing for future expansion; buildings—office, pattern, machine shop, foundry, etc.—connected by tunnels; foundations in; steel work proceeding; large list of machinery, all purchased; will use own engines for power generation.

Okla., Checotah.—Iron.—Champion Iron Manufacturing Co., capital stock \$25,000, incorporated by R. O. Smith of Checotah, A. Rosebraugh and J. M. Lamming of Muskogee, Okla.

Tex., Dallas.—Cotton-oil Machinery, etc.—The Murray Company increased capital stock from \$300,000 to \$1,000,000.

Tex., Houston.—Electrotypes.—Hilton E. Dunseth of Spokane, Wash., will locate at Houston to establish electrotype foundry lately mentioned; will occupy building to be erected by M. E. Foster.

Tex., Houston.—Machinery.—Calhoun Pattern Foundry & Machinery Co., capital stock \$40,000, incorporated by John C. Calhoun, Jas. B. Blaine and H. E. Waterman; acquired property formerly occupied by White Brick Co., having frontage of 270 feet on ship channel and extending 400 feet back to International & Great Northern Railroad tracks; two old buildings, one 80x53 feet and other 40x50 feet, are in course of reconstruction, and two fireproof buildings, one 150x40 feet and other 100x40 feet, will be erected; smaller buildings for offices will be constructed; machinery ordered; company expects eventually

to utilize entire tract; J. Gaston will be secretary.

Tex., Temple.—Machinery.—Duff-McNey Foundry Co. and Temple Foundry & Machine Co. have consolidated; erecting new buildings; former company was previously mentioned as having plans prepared for erection of machine and repair shops and iron foundry.

Va., Salem.—Machinery.—Salem Foundry and Machine Works increased capital stock from \$30,000 to \$50,000.

#### GAS AND OIL DEVELOPMENTS

Ky., Monticello.—South Fork Oil & Gas Co. incorporated, capital stock \$200,000, by E. T. Caffrey of Somerset, Ky.; C. C. Duncan and E. E. Bell of Monticello.

Ky., Paintsville.—Sullivan-Mayo Oil & Gas Co., capital \$10,000, incorporated by W. I. Mayo, George Gray, H. C. Sullivan, John C. C. Mayo and P. N. Day.

La., Shreveport.—City votes September 3 on granting franchise to W. K. Henderson, Jr., and J. G. Hester for furnishing natural gas.

Okla., Blackwell.—City voted \$100,000 bond issue to construct natural gas pipe line from gas field to city. Address The Mayor.

Okla., Muskogee.—Gloria Oil Co., capital \$10,000, incorporated by Walter C. Nelson, C. E. Shoeneft and J. Garfield Buell.

Okla., Oklahoma City.—Independent Mutual Oil Co., capital \$50,000, incorporated by R. W. Burton and R. M. Conway, Oklahoma City; C. M. Joiner, Ardmore, Okla.; M. E. France and D. S. Woodson, Alva, Okla.

Okla., Oklahoma City.—Creta Oil, Gas & Development Co., capital \$25,000, incorporated by W. F. Morrison, F. C. Gow, D. A. Bowersock and O. W. Dickerson.

Okla., Tulsa.—Myers Oil & Gas Co., capital stock \$8000, incorporated by E. R. Meighen of Tulsa, I. B. Meyers, A. F. Mortimer, W. A. Thompson and C. L. Burgwin of Haskell, Okla., and others.

Okla., Tulsa.—Exchange Oil & Gas Co., capital stock \$6000, incorporated by G. C. Simmone, B. H. McLaughlin, J. H. Thomas and W. D. Bryan.

Tex., Beaumont.—Big Three Oil Co., capital stock \$5000, incorporated by J. B. Price, C. M. Ives and W. H. Davidson.

Tex., Liberty.—Trinity Company, capital stock \$1200, incorporated by Joseph Riviere, J. A. Lovett and Wirt Davis.

Tex., Denison.—North Texas Gas Co. has been granted franchise to supply natural gas for general business, industrial and residence use; unloading pipe, and will commence excavations at once.

W. Va., Upshur County.—Selbyville Oil & Gas Co., capital stock \$25,000, incorporated by Robert L. Mason, Philip M. Berwald, Eugene F. Connors, all of Bradford, Pa., and others.

W. Va., Parkersburg.—R. J. R. S. Oil & Gas Co., capital stock \$5000 incorporated by R. G. Stiles, F. H. Rexroad, S. B. Stiles and others.

W. Va., Wayne.—Wayne Light, Heat & Water Co., capital stock \$30,000, incorporated by B. J. Prichard and E. R. Prichard of Wayne, J. R. Miller of Eustis, Fla., and others; to light, heat and supply water and natural gas for general use, including manufacturing; contemplates installation of plant within next 90 days; has completed survey of line; water-works construction probably in spring of 1913.

#### ICE AND COLD-STORAGE PLANTS

Ark., Monticello.—Company organized with \$60,000 capital stock to establish ice and cold-storage plant and cannery; cold-storage warehouse to be used mainly for eggs and have capacity of 40 carloads; ice plant, daily capacity 10 tons; cannery for fruits and vegetables; Fred Wells is in charge.

Fla., Pensacola.—Moore Ice Co., S. T. McAdam, manager purchased Stratton Ice Works; will remodel plant, improve machinery and increase capacity to 75 tons per day.

Fla., St. Petersburg.—Citizens' Ice & Cold-Storage Co., H. W. Heibis, president (recently noted as acquiring ice plant of N. C. Williams), will add cold-storage, etc.; Horace Williams, manager.

Md., Baltimore.—Knickerbocker Ice Co., York and William Sts., will build addition for storing ice; structure of brick and concrete; plans by Herbert G. Jory, 1408 Munsey Bldg., Baltimore; contractors estimating are Henry S. Ripple, 1-7 Clay St.; Schamberger & Herbert, 212 E. Baltimore St., and others, all of Baltimore.

Miss., Meridian.—Rex Planing Mill contemplates installation of ice-making machine. (See "Machinery Wanted.")

Mo., Springfield.—Ozark Ice & Cold Storage Co., capital \$40,000, incorporated by L. L. Hammond, B. E. Meyer, Edward Magnus and others.

Okla., Rugwood.—V. V. Black will build cold-storage warehouse for storage of eggs, poultry, fruits, etc.; awarded contract.

#### IRON AND STEEL PLANTS

Va., Pulaski.—Iron.—Virginia Iron, Coal & Coke Co., Roanoke, Va., will repair Bora furnace; will refine, install new machinery, etc.

W. Va., Benwood.—Iron Furnace.—National Tube Co. (general offices, Frick Bldg., Pittsburgh, Pa.) has blown in furnace "A" (of Riverside plant), which has been practically rebuilt.

#### LAND DEVELOPMENTS

Ala., Greene County.—Jos. O. Thompson and J. E. Penny of Birmingham, Ala., purchased about 6000 acres land in black belt section, including 3160 acres at Hairston and 3000 acres at Clinton; will divide into small farms for alfalfa growing. (Recently mentioned.)

Fla., Dupont.—L. G. Williams, Dupont, general manager Dupont Railway & Land Co., general offices, Miller Bldg., Scranton, Pa., advises Manufacturers Record that properties consisting of 32,000 acres of land, with railroad, saw, planing and shingle mills and barrel factory, owned by Tippecanoe Securities Co. of Scranton, Pa., will be divided by that company and sold as farms, with land drained, house, barn and fence built, and crop growing. Mr. Williams further states: "We intend to farm 12,000 acres ourselves, and are in market for farm implements." This proposition was noted previously under "Lumber Manufacturing" and also "Land Developments," Fla., Ormond. (See "Machinery Wanted.")

Fla., Bartow.—Lycurus Burns, Anaheim, Cal. (present address Champaign, Ill.), purchased 20,000 acres marsh lands; will drain and develop as sugar-cane and winter vegetable proposition; also establish industrial town bordering purchase.

Fla., Fellsmere.—Florida Plantations Co., capital stock \$1,000,000, incorporated; E. G. Vans Agnew, president; E. H. Every, vice-president; P. A. Vans Agnew, vice-president; Arthur E. Donegan, treasurer; W. B. Crawford, secretary, all of Kissimmee, Fla.; Mr. Donegan wires Manufacturers Record: "Plans not yet matured; company backed by New York capital; has considerable acreage in St. Lucie county, which will probably develop by extensive drainage system."

Fla., Jacksonville.—Springfield Heights Co., capital stock \$100,000, incorporated; Edward O'Donald, president; C. G. Strickland, vice-president; H. B. Bisbee, treasurer; R. B. Shield, secretary.

Fla., Miami.—Model Groves Company, capital stock \$25,000, incorporated; James W. Anderson, president-general manager, Coconut Grove, Fla.; E. S. Benson, vice-president, and Clifton D. Benson, secretary-treasurer, both of Miami.

Fla., Sanford.—Neumathia Grove Co., capital stock \$50,000, incorporated; S. M. Stephens, president; L. B. Skinner, vice-president; Sydney O. Chase, secretary; Joshua C. Chase, treasurer.

Ga., Atlanta.—F. M. Stocks, W. S. McKemie, Charles Lordinas, George C. Walters and others acquired real estate, fronting on Nelson and Walker Sts., at about \$500,000; will raze buildings, grade sites, construct streets, etc., and provide for utilization for warehouse and manufacturing district.

Ga., Savannah.—George D. Semken purchased 30 acres of Placencia tract. Mr. Semken already owns portion of property and will develop as subdivision.

La., Shreveport.—New Shreveport Golf and Country Club, S. B. Bollinger, president, will expend about \$35,000 in improvements to 260-acre tract, including \$18,000 clubhouse, golf links, water-works, automobile barns, driveways, shooting grounds, tennis courts, etc.; also proposes to drill well to supply natural gas for light and power.

Miss., Port Gibson.—Company organized with F. E. Myles president and Ben G. Humphreys vice-president, both of Jackson, Miss.; will develop 50,000 acres for stock farm and growing corn, peas, hay, etc.; plans to build silos, dairy, etc.

N. C., Lakeview.—Fred Oliver and Tom Oliver of Charlotte, N. C., purchased 1000 acres in Moore county, near Lakeview; will clear and cultivate.

N. C., Southern Pines.—Southern Pines Improvement Co., capital stock \$25,000, in-



corporated by R. E. Wiley, John S. Huntress, John N. Powell and others.

Okl., Grant County.—F. O. McGehee, Pine Bluff, Ark., purchased 17,000 acres in Grant county for \$150,000 and will colonize; will locate about 200 German families.

Okl., Muskogee.—Phoenix Improvement Co., capital stock \$100,000, incorporated by Tams Bixby, E. K. Bixby and Joel H. Bixby.

S. C., Charleston.—Palms Estate, Inc., capital \$30,000, chartered by Walter B. Wilbur, William C. Wilbur and Sarah E. Quinn.

S. C., Charleston.—Pineland Park, capital stock \$5000, incorporated by Walter B. Wilbur, William C. Wilbur and Sarah E. Quinn.

S. C., Florence.—Florence Land Corporation, capital \$20,000, incorporated by M. B. Lucas and E. E. Brunson.

Tex., Angellita.—O. L. Hubbard of Chicago, Ill., purchased 2000-acre tract near Angellita and will establish townsite; construct water-works, etc.

Tex., Pecosito.—Bickenbach Land & Development Co., El Paso, Tex., will incorporate with \$500,000 capital stock to develop 11,700 acres of land, 3200 being in Webb county and \$500 in Duval county; propose developing town of Bickenbach in Duval county; also cultivate 500 acres in onions at Pecosito; will erect clubhouse to cost \$50,000 at Ingleside, Tex.; F. P. Bickenbach (previously noted as to develop town of Bickenbach, promote various industries, etc.) will probably be president.

W. Va., Charleston.—King Street Real Estate Co., capital stock \$50,000, incorporated; James Allen, president-treasurer; W. S. Allen, vice-president; Emslie Nicholson, secretary.

### LUMBER MANUFACTURING

Ala., Birmingham.—Empire Lumber Co., W. C. Hamilton, president (recently noted incorporated, \$40,000 capital stock), acquired established plant; no further equipment needed.

Ark., Dallas County.—Virgin Timber Co. incorporated by Abraham Newman and associates of Chicago, Ill.; purchased 62 acres timber land in Dallas, Grant, Cleveland and Jefferson counties.

Ark., Des Arc.—White River Lumber Co., capital stock \$10,000, incorporated by C. D. Rhynes of Des Arc, Charles G. C. Leigh and D. F. Raff of Chicago, Ill.

Ark., Petit Jean (not a postoffice).—Colorado-Arkansas Land & Lumber Co., George N. Goodier, secretary-treasurer, Dardanelle, Ark., will operate sawmill; machinery for present needs already installed; daily capacity, 25,000 feet hardwood lumber; later contemplates erecting several buildings, one or two structures for commissary department and installing other machinery; latter probably for another sawmill. (Recently noted as to incorporate, etc.)

Florida.—Myakka Land Co., capital stock \$20,000, incorporated by F. P. Hue, Jerry Cray, G. H. Dunham and others of Warren, Fla., to manufacture lumber in Florida.

Fla., Orlando.—Pawabec Lumber Co. will operate lumber plant; further information not available at present; L. L. Payne, president; A. L. Beck, vice-president; T. P. Warlow, secretary-treasurer. (Recently noted incorporated.)

Fla., Punta Gorda.—Punta Gorda Land & Lumber Co., organized with Cassius M. Carrier, president, Punta Gorda; Hugh McLean and M. E. Preisch, vice-presidents, both of Buffalo, N. Y.; M. V. Williams, secretary, Punta Gorda.

Fla., Tampa.—Tampa Lumber Co., capital stock \$20,000, incorporated; will succeed Gulf Novelty Works; C. C. Sims, president; R. G. Holmes, John L. Branch, vice-presidents; George V. Booker, secretary-treasurer; R. G. Holmes, general manager.

Ga., Gainesville.—Byrd-Matthews Lumber Co., capital stock \$1,000,000, incorporated by C. O. Byrd, E. C. Matthews, John R. Dawkins and others.

La., Alexandria.—Christian Liebke of St. Louis, Mo., purchased 939 acres timber land along Bayou Boeuf in Rapides parish for \$25,000.

La., New Orleans.—Jennings Logging Co., capital stock \$3000, incorporated; Edward Jennings, president; Charles T. Stansbury, vice-president; Leonard C. Vacher, secretary-treasurer.

Mo., Kansas City.—Fidelity Lumber Co. (recently noted incorporated with \$650,000 capital stock) acquires plant at Doucette, Tex. (See Tex., Doucette.)

Mississippi.—Mossman Lumber Co., Memphis, Tenn., purchased 1200 acres timber land in Mississippi and will develop.

Tex., Doucette.—Fidelity Lumber Co. (re-

cently noted incorporated under Mo., Kansas City) acquired complete established plant; no additional machinery needed; C. B. Sweet, president; F. J. Bannister, vice-president and secretary; J. H. Foresman, treasurer; Wm. Peters, manager.

Tex., Pittsburg.—Denman Lumber Co., capital stock \$7500, incorporated by T. L. Denman, R. F. Lindsay and E. S. Lillienstein of Mt. Pleasant.

Va., Nelson County.—Tyro Development Co., capital stock \$300,000, organized with following officers: President, R. G. Leftwich; vice-president, C. W. Womack; secretary, L. W. Meeks; treasurer, W. M. Wagt; all of Lynchburg, Va.; will develop 10,000 acres timber land on Tye River in Nelson county, owning 5000 acres and having timber rights on 5000; will construct standard-gauge railway 16 miles long, from Tye River station on Southern Railway to timber property, and build four or five large sawmills; property estimated to contain nearly 102,000,000 feet of timber; will develop land for orchards after timber is cut; offices in Marshall Lodge Bldg., Lynchburg, Va. Company advises Manufacturers Record that railroad will be only immediate construction undertaken and that plans include mining iron, manufacturing extracts, etc.

### METAL-WORKING PLANTS

Ala., Birmingham.—Culverts, etc.—Birmingham Metal Products Co., J. H. Dean, president, has mainly purchased machinery (costing about \$12,000) for a recently-noted enlargement of initial plant to manufacture metal culverts, ice and garbage cans, etc. (See "Machinery Wanted.")

N. C., Whitney — Aluminum. — Southern Aluminum Co., wires Manufacturers Record: "Contracts for completion of canal awarded to Joseph Sands Company, Roanoke, Va.; contract for masonry and power-house to Hardaway Contracting Co., Columbus, Ga.; capacity of power station about 45,000 horsepower; present development work to commence immediately and be completed within nine months; works for reduction of aluminum with all necessary sidings, machine shops, stores, etc., will be constructed immediately; Dr. Paul Heroult, who invented the process for reduction of aluminum, representing French interests in Whitney; W. P. Marselles, general manager; F. Campbell, engineer." Southern Aluminum Co. is capitalized at \$8,000,000 and controlled by L'Aluminium Français de Paris, France; its purchase of North Carolina Electric & Power Co. property (former Whitney Company proposition), plan to complete hydro-electric plant and build aluminum works, etc., reported recently. New York address, care of Banque Franco-Américaine, 45 Wall St.

Va., Norfolk.—Fences and Screens.—Norfolk Fence & Screen Co. incorporated with \$25,000 capital stock; has plant for manufacturing wire fence and roller window screens; building completed and machinery installed; operate by electricity; E. E. Etheridge, president and treasurer; J. H. Etheridge, vice-president; L. P. Matthews, secretary. (This supersedes previous report.)

W. Va., Wheeling — Tinplate. — Wheeling Sheet & Tinplate Co., capital stock \$750,000, organized to build 10-mill plant (later increased to 20 mills) for manufacturing block tinplate; president, J. J. Halloway; vice-president, Edw. Hazlett; secretary-treasurer, F. W. Henderson; all interested in La Belle Iron Works.

### MINING

Ky., Beattyville.—Stone and Sand.—Beattyville Stone Co., W. F. Garretson, president, recently noted incorporated (under "Miscellaneous Enterprises") with \$10,000 capital stock, will operate plant with daily capacity of 300 cubic yards stone and 500 cubic yards sand; install gyratory stone crusher, 50-horsepower engine, rotary screens and steam drills.

Md., Baltimore.—Maryland Mineral Products Co., capital stock \$10,000, incorporated by William A. Bochau (Maryland Printing & Engraving Co., 438 N. Front St.), Henry Vogt and Jacob M. Moses.

Mo., Badger.—Lead and Zinc.—O. W. Sparks will build electrically equipped concentrating plant at Yellow Pup mine.

Mo., Carthage.—Gravel.—American Gravel Co., capital \$4000, incorporated by S. A. Fones, Amy Fones (both of Carthage) and E. M. Fones of Joplin, Mo.; will remill tailings from American Zinc, Lead & Smelting Co.'s plant at Webb City, Mo.

Mo., Joplin.—Lead and Zinc.—Sidney O'Donnell leased 40 acres of gray land and proposes organizing development company.

Mo., Webb City.—Lead and Zinc.—Charles T. Orr and associates leased 40 acres near

Webb City and contemplate development; preparing plans for mill.

Mo., Webb City.—Lead and Zinc.—F. R. Cornett contemplates further development of mining land near Webb City; will remodel mill and install electric motor; resume construction of mill partially completed and probably erect third mill.

Okl., Oklahoma City.—Sand.—Sequoyah Sand Co., capital stock \$12,000, incorporated by J. O. Severns, W. F. McLaury and Horace Hayden, Sr.

### MISCELLANEOUS CONSTRUCTION

Ark., Marianna.—Levee.—St. Francis Levee District of Lee county contemplates issuing bonds for levee construction. Address District Commissioners.

Ala., Mobile.—Docks, etc.—E. G. Hewlett of Schenectady, N. Y., vice-president of Alabama Port Land & Improvement Co., 10 Wall St., New York, advises Manufacturers Record that company named and South Mobile Terminal Co. are proceeding with developments at Alabama Port; latter company is constructing docks, railroads, warehouses, coal pockets, etc., on Mobile Bay, and Alabama Port company is contributing about five square miles of land for railroad terminals, manufacturing sites, etc.; plans include expansive system of slips, docks, loading basins, breakwaters, dredging channel from docks, 4½ miles to deep water; about 40 feet wide, with depth of 25 feet; docks on "herring-bone" system having numerous piers about 100x300 feet, with slips about 200x80 feet, radiating from main stem or pier 400 feet wide; water-works; electric plant for light and power, etc. (Organization and other details heretofore reported.)

Fla., Pensacola — Wharf. — Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., is reported as to improve Central wharf and build another wharf-warehouse; Central wharf plans are said to be ready, providing for 1400-foot extension. Mr. Courtenay wires Manufacturers Record: "Not taking bids on wharf and warehouse; it may be several years before these improvements are constructed."

Fla., St. Andrews Bay (not a postoffice).—Wharves and Docks.—Georgia Southwestern & Gulf Railway, W. M. Legg, general manager, will construct wharves and docks.

La., Franklin.—Dredging.—Franklin Drainage Commission awarded contract to Hugh Dredging Co. to dredge canal from Cote Blanche Bay to railroad at Franklin.

La., New Orleans.—Levee.—Orleans Levee District will construct Andry St. to lower line of Orleans parish; length, 3305 feet; contents, 25,000 cubic yards earth; bids received until August 15; Jules C. Koenig, president of board. (See "Machinery Wanted.")

La., New Orleans.—Wharf.—New Orleans Dock Board has arranged with St. Louis & San Francisco Railroad for construction of Pauline St. Wharf; length 1500 feet; total cost \$500,000; board wires Manufacturers Record that engineer has been authorized to prepare plans and specifications. (Previously reported.)

La., New Orleans.—Dredging.—Government awarded contract to W. D. Haden of Galveston, Tex., at \$234,714.50 to dredge Section B of Sabine-Neches Canal.

Mo., Medley.—Government awarded contract to C. T. Bonduant of Hickman, Ky., at \$150,000 to reconstruct levee on Missouri side of Mississippi River, opposite Hickman, Ky., and extending to Medley, Mo.; 650,000 yards; Lee & Callahan of Fulton, Ky., are subcontractors.

N. C., Charlotte.—Retaining Walls.—City will construct concrete retaining wall for East Trade St. underpass; bids received until August 17; Joseph Firth, City Engineer; A. H. Wearn, City Clerk. (See "Machinery Wanted.")

S. C., Charleston.—Steamship Terminals.—Clyde Steamship Co., Pier 36 North River, New York, is reported as to open bids August 15 on construction of water-front terminals heretofore announced as planned; purchased property, including 1000 front feet of water-front, for \$300,000, and reports state will expend \$500,000 for wharves, warehouses, etc.

Tenn., Memphis.—Levee Improvements.—George W. Fuller, engineer, of New York, approved plans by J. H. Weatherford, City Engineer, which provide for following: Wall along Front St. or Illinois Central Railroad tracks between Overton and Looney Aves., which would hold 50 feet of water and in times of flood high water from bayou would be lifted over wall by pumps; cutting bayou in two at Huling Ave. so that southern end would be drained into Mississippi River through tunnel along Huling Ave.; strength-

ening levees and erecting at least eight pumps at mouth of bayou with capacity of 40,000 gallons of water per second; estimated cost \$1,300,000 to \$1,500,000. (Recently mentioned.)

Tex., Tyler.—Heating Plant.—Texas College is having plans and specifications prepared by Moses McKissack Company, Nashville, Tenn., and Tyler for central heating plant for boys' dormitory; correspondence should be directed in care of Texas College, Tyler.

### MISCELLANEOUS ENTERPRISES

Fla., Pensacola.—Laundry.—C. & C. Laundry, capital stock \$12,000, incorporated; Walker Ingraham, president; J. Whiting Hyer, vice-president; W. M. Richards, secretary-treasurer.

Ga., Athens.—Publishing.—Athens Herald Co., incorporated by Bowdrey Phinizy and Thomas J. Sheron of Augusta, Ga., and others; will acquire mechanical property of Athens Tribune.

La., Bogalusa.—Creosoting Plant.—American Creosoting Co., Richard V. Look, vice-president, general offices 401 W. Main St., Louisville, Ky., states Colonial Creosoting Co.'s buildings will be of steel and concrete fireproof construction; Colonial corporation was formed recently with \$100,000 capital stock and is subsidiary to American Creosoting Co. and Federal Creosoting Co.; New York offices at 114 Liberty St. (As recently stated, plant will have annual capacity of 750,000 ties.)

La., New Orleans.—Canal Betterments.—Alabama-New Orleans Transportation Co., wires Manufacturers Record confirming statement of proposed betterments; John Bernard, general manager of company named and of New Orleans Canal Co., holding corporation, will have charge of Lake Borgne improvements to cost more than \$1,000,000; plans are to construct 30,000-ton storage plant for coal, harbor for four 1000-ton coal barges, three steel towers costing \$200,000 for loading and unloading, tunnel 650 feet long under storage plant, tunnel conveyors of 500 tons hourly capacity, shipyard extending 1200 feet eastward from storage plant, machine shop driven by electric power, widening and deepening waterway to provide minimum width of 100 feet, two-story administration building, etc.; contract for towers awarded to Fairbanks, Morse & Co., Chicago, Ill.; will award harbor contract to New Orleans firm; Mr. Bernard has temporary offices in Ibernia Bank & Trust Bldg. (Purchase of canal, contract for 30 self-propelling steel barges, etc., recently announced.)

Md., Baltimore.—Motordrome.—Baltimore Motordrome Co., incorporated, capital stock \$75,000, by Geo. D. Hopkins, R. M. Grawl and M. M. Dugan.

Md., Baltimore.—Building.—Land Building Co., capital stock \$5000, incorporated by Cloyd Lewis (396 St. Paul St.), Clarence H. Hurlock and Karl A. M. Scholtz.

Miss., West Point.—Printing.—Bailey Printing Co., capital stock \$5000, incorporated by Harry Bailey, P. G. Eelbeck, Wiley S. Keyes and W. S. Fisher. (Recently reported as being organized.)

Miss., Vicksburg.—Stockyards.—Farmers' Stockyards, capital stock \$10,000, incorporated; Philip Feld, president.

Mo., St. Joseph.—Construction.—Marion Construction Co., capital \$2000, incorporated by G. O. Skilbred, M. O. Land and Daniel Donaghue.

N. C., Charlotte.—Publishing.—Stone Publishing Co., capital \$10,000, incorporated by Charles S. Stone, Addie A. Stone and Laura E. Stone.

N. C., Charlotte.—Books and Stationery.—Stone-Barringer Book Co., capital \$10,000, incorporated by Charles A. Stone, Addie A. Stone and Laura E. Stone.

N. C., Charlotte.—Dairy.—Charlotte Dairy Co., capital stock \$25,000, incorporated by J. A. Berryhill, D. H. Watkins, H. D. Kirkpatrick and others.

N. C., Raleigh.—Electrical Supplies.—Thompson Electrical Co., capital stock \$10,000, incorporated by D. J. Thompson, M. L. Fendley and T. L. Shuping.

N. C., Salisbury.—Grain Elevator.—Grimes Milling Co. will erect grain elevator adjoining its roller flour mill; 30x35-foot building, 75 feet high, of wood, with cement basement; 11 bins with elevators; capacity, 1500 to 2000 bushels wheat.

N. C., Salisbury.—Machinery and Supplies.—Robbins & Daggett, Grubb Bldg., organized

to deal (as manufacturers' agents) in machinery and supplies. (See "Machinery Wanted.")

N. C., Winston-Salem—Abattoir.—City will build abattoir; cost \$25,000. Address The Mayor.

S. C., Shelton—Mineral Water, etc.—Shivar Spring Co., capital stock \$100,000, incorporated by N. F. Shiver of Shelton and W. W. Stover of Greenville, S. C.

Tenn., Nashville—Milk Depot.—Nashville Pure Milk Co., capital stock \$15,000, incorporated by George R. Anthony, Ed Gasser, Charles Mitchell and others.

Tex., Brenham—Laundry.—Mrs. Julia R. Simon will erect building; 50x90 feet; solid glass front; fireproof; concrete floor; will be equipped by Brenham Troy Laundry.

Tex., Orange—Printing.—Company organized with L. Miller president, H. J. L. Stark and R. A. Moore vice-presidents, F. L. Farwell secretary-treasurer; will conduct wholesale paper-house and install printing plant.

Tex., Texarkana—Laundry.—Red Cross Laundry Co., capital stock \$12,000, incorporated by W. A. Nelson, D. F. Tabor and Paul G. Huckins.

W. Va., Morgantown—Contracting.—H. J. Zelely Company, capital stock \$25,000, incorporated by Harry J. Zelely, Edith G. Zelely, Theodore J. Arthur, Edgar B. Stewart and others.

### MISCELLANEOUS FACTORIES

Ala., Birmingham—Syrup and Bottling.—Crown City Bottling & Syrup Co. increased capital stock from \$3000 to \$50,000.

Ala., Tuscaloosa—Wood Pulp and Paper.—Joseph J. Hurlburt and M. G. Stock of Lock Haven, Pa., contemplate establishing wood pulp and paper mill.

Ark., Argenta—Gas.—Pulaski Gas Light Co. will extend mains to eastern section of city.

Ark., Hickory Ridge—Rice.—Louis C. Nolsawald and others of New York will, it is reported, build mill with daily capacity 400 barrels rice.

Ark., Hot Springs—Medicines.—Hot Springs Chemical Co. (recently noted incorporated with \$50,000 capital stock) will install laboratory equipment to manufacture tablets. Address F. P. Walker, president.

Ark., Reector—Creamery.—H. L. Shannon is interested in organization of company with \$6000 capital stock to establish creamery.

Fla., Gainesville—Self-starter.—Kelly Self-Starter Co., capital stock \$200,000, incorporated; W. R. Thomas, president; M. H. De Pass, vice president; J. W. Blanding, secretary; Philip Miller, treasurer.

Fla., Jacksonville.—Union Terminal Co., C. B. Gay, president, will erect warehouse, portion of which will be used by C. B. Gay Company as syrup factory. (See "Warehouses.")

Fla., Largo—Fruit Juices and By-products. Pure Fruit Juices & By-products Co., Thos. C. Hammond, president, 7-8 Giddens Bldg., Tampa, Fla., is now having machinery built in Tampa for recently-noted plant to manufacture following: Pure juices from orange and grapefruit, and by-products, such as essential oils, citric acid, orange coffee, marmalades and jellies; daily capacity at start 800 gallons juice and by-products in proportion; capital \$100,000; buildings erected.

Ga., Athens—Mattresses.—R. B. Dixon and A. J. Carter will establish mattress factory to cost \$25,000; will equip Swift Building; operate as Dixon & Carter.

Ga., Macon—Ice-cream.—Kinnett Coal & Ice Co., J. D. Kinnett, president, will rebuild plant recently noted burned; mill construction; cost \$5000; install machinery with daily capacity of 1500 gallons ice-cream; also deal in ice, wood and coal; building construction begun; contractor, W. H. Fuller.

Ky., Clermont—Distillery.—Murphy, Barber & Co., capital stock \$125,000, incorporated by Joe Kern, L. Salmon, Mose Grabfelder and others.

Ky., Falmouth—Creamery.—Homer Owens, Butler, Ky., contemplates establishing creamery.

Ky., Mayfield—Tobacco.—A. P. Ford will rebuild tobacco factory recently reported burned; 100x50 feet; fireproof or ordinary construction; metal or composition roof; bids opened August 1. (See "Machinery Wanted.")

Md., Baltimore—Gas.—Consolidated Gas, Electric Light & Power Co., Lexington and Liberty Sts., contemplates future improvements, expending \$1,500,000 annually for next 10 years, making total expenditure of \$15,000,000. (Various improvements heretofore announced.)

Md., Baltimore—Marble.—Sisson Marble Co., W. 23d St. and Baltimore & Ohio Rail-

road, increased capital stock from \$65,000 to \$80,000.

Mo., Joplin—Cigars.—Miles Guarantee Cigar Co. will build factory; two stories and basement; reinforced concrete.

Mo., Joplin—Brooms.—J. W. Wren of Springfield, Mo., will establish broom factory.

Mo., Kansas City—Storage Batteries.—Midland Battery Co., 1429 McGee St. (recently noted incorporated with \$25,000 capital stock), will manufacture storage batteries; install molds, plate-cutting machine, furnaces, motor, etc., at cost of about \$7000; A. C. Owens, president and manager; Chas. N. Bird, vice-president; Samuel Silverman, secretary-treasurer; secured building for present use.

Mo., St. Louis.—Escanaba Manufacturing Co., increased capital stock from \$400,000 to \$500,000.

Mo., St. Louis—Carburetor.—Carter Carburetor Co. increased capital stock from \$100,000 to \$150,000.

Mo., St. Louis.—Hachmann Manufacturing Co., capital stock \$50,000, incorporated by Frederick Hachmann, John A. Dowdall, J. Walter Stege and others.

Mo., St. Louis—Automobile Chairs.—Pugh Auto Chair Co., capital \$5000, incorporated by John Schulz, A. A. Vancleave, C. C. Knight and others.

Mo., St. Louis—Washing Compound.—Forde Products Corporation, Arthur H. Forde, president, Winnipeg, Canada, will, it is reported, establish washing-compound factory to cost \$100,000 and distribute warehouse to cost \$75,000.

Mo., St. Louis—Aeroplanes.—Benoist Air Craft Co., capital stock \$50,000, incorporated by Tom W. Benoist, J. C. Henning and A. Cassidy.

Mo., St. Louis—Soap.—William Waike & Co., Second and Grand Aves., awarded contract to Erdbrugger & Beumer, 2309 Natural Bridge Ave., St. Louis, to erect proposed factory and warehouse; 90x100 feet; ordinary construction; electric lighting; composition gravel roof; cost \$9000.

N. C., Concord—Gas.—International Gas & Electric Co. (Bachman & Co., 721 Marbridge Bldg., Broadway and 34th St., New York, financial agents) is proceeding with equipment of previously-noted gas plant of Concord Gas Co.; Lowe water-gas apparatus; installation by United Gas & Improvement Co., Philadelphia, Pa.

N. C., Hickory—Creamery.—Catawba Creamery Co. will erect 30x10-foot addition; ordinary construction; cost \$2000. (Recently noted to increase capital stock and enlarge building.)

N. C., Kannapolis—Gas.—Concord Gas Co., F. L. Fuller, local manager, Concord, N. C., will extend gas mains to Kannapolis.

N. C., Newbern—Oils, Paints, etc.—Tarro Chemical Co., capital \$10,000, incorporated by J. N. Howard, J. J. Rhodes and others.

N. C., Wilmington—Naval Stores.—Huggins Naval Stores Co. (recently noted incorporated with \$100,000 capital stock) will establish plant for recovery of rosin from waste material; erect several sheds covered with iron; cost of machinery (ordered), \$8000; daily capacity, 8000 pounds rosin; F. L. Huggins, president; K. C. Huggins, vice-president; W. L. Cantwell, secretary-treasurer. (See "Machinery Wanted.")

N. C., Wilmington.—Huggins Naval Stores Co. purchased 2½ acres county farm tract on Smith's Creek and will build manufacturing plant. (Recently reported incorporated by F. L. Huggins and others.)

N. C., Winston-Salem—Tobacco.—R. J. Reynolds Tobacco Co. will increase capital stock from \$7,525,000 to \$10,000,000.

N. C., Winston-Salem—Tobacco.—J. L. Casper, J. F. Smithdeal and associates contemplate organizing company to manufacture plug and twist tobacco; will equip Casper-Smithdeal building on N. Main St.

N. C., Wilson.—International Gas & Electric Co. (Bachman & Co., 721 Marbridge Bldg., Broadway and 34th St., New York, financial agents) is proceeding with equipment of previously-noted plant; Lowe water-gas apparatus; installation by United Gas & Improvement Co., Philadelphia, Pa.

Okla., Tulsa—Soap.—Tulsa Soap Co., capital stock \$50,000, incorporated by K. B. Pence, Marietta Pence and J. B. Pence.

S. C., Rock Hill—Gas.—Public Utilities Construction Co., Frank L. Fuller, president, Philadelphia, Pa., applied for franchise to construct gas plant.

S. C., Sumter—Gas.—Sumter Gas & Power Co., incorporated by L. Irving Pollitt, E. L. Rieha and James McEvoy; awarded contract

to Carr Construction Co. of Sumter to erect buildings.

Tenn., Cagle—Cheese.—J. D. Turner, James Turner, Albert Turner and associates contemplate establishing cheese plant.

Tenn., Chattanooga—Signals.—Chastteen Signal System Co., capital stock \$200,000, will be incorporated to manufacture railway signal devices; W. J. Chastteen, president, East Chattanooga, Tenn.; W. P. Charlton, vice-president, Oklahoma City, Okla.; Philip H. Sweet, vice-president, East Chattanooga; Charles R. Evans, treasurer, Chattanooga.

Tenn., Johnson City—Gas.—B. F. Brooke Sewell, Box 70, Washington, D. C., and J. M. Moss, 943 Calvert Bldg., Baltimore, Md., acquired franchise to manufacture and distribute gas. (Mr. Sewell previously noted as applying for franchise.)

Tex., Galveston—Brooms.—Jules Muller purchased Fry Broom Co.'s plant and will operate as Muller Broom Co.; daily capacity, 40 dozen brooms; expects to double.

Tex., Houston—Moving-Picture Films.—Lone Star Film Co. organized by Dave A. Weis, Jake Schwartz and Harry Darrow; offices, 511-512 Chronicle Bldg.

Tex., San Marcos—Gas.—City Council granted 20-year franchise to R. O. Langworthy and associates of San Antonio, Tex., to establish gas plant and supply light and fuel for cooking and heating.

Va., Alexandria—Bottling.—Robert Portner Brewing Co. awarded contract to Boyle-Robertson Construction Co., Washington, D. C., for construction of reinforced concrete, brick and structural steel bottling plant; 95x160 feet; Francis R. Weller, engineer, Hibbs Bldg., Washington, D. C.

W. Va., Charleston—Glass.—Kanawha Glass Co., capital stock \$75,000, incorporated by L. H. Harrison and J. D. Pribble of Charleston, E. L. Michle and Harold P. Thompkins of Cedar Grove, W. Va., and E. E. Fisher of Wilcox, Pa.

### MOTORS AND GARAGES

Ga., La Grange—Garage.—J. G. Truitt has plans by Walker & Chase, Candler Bldg., Atlanta, Ga., for garage; 40x67½ feet; fireproof construction; slate, metal or composition roof; cost \$5000. (Recently noted to be occupied by W. P. Burks of City Drug Co.)

Ga., Macon—Garage.—Wade Garage Co., capital stock \$12,000, incorporated by Phelps Wade, Edward T. Wadley and M. E. Richardson.

Ky., Louisville—Garage.—F. B. Breyfogle, Sr., will build garage at 1600 2d St.; cost \$6000.

Mo., Kansas City—Automobiles.—Hudson-Latham Motor Co., 1717 McGee St., organized with W. A. Latham, president and treasurer; C. Berlin Boyd, vice-president; will deal in automobiles. (Recently noted incorporated with \$10,000 capital stock.)

Mo., St. Louis—Garage.—A. M. Zerweck, St. Louis, representative of Warren-Detroit Motor Car Co. of Detroit, Mich., purchased site at 3048 Locust St. on which to erect automobile garage; 42x126 feet; exterior of white enameled tile; interior walls enameled white; tile floors; mahogany woodwork; prism glass windows and skylight.

Tenn., Knoxville—Garage.—H. O. Nelsen will build garage; reinforced concrete; cost \$11,000.

Tenn., Nashville—Garage.—Richard C. Platter will build garage; site comprises 20,000 square feet; plans being prepared.

Va., Richmond—Garage.—Lizzie Sauer Dunston will erect garage; two stories; brick; cost \$15,000.

Va., Richmond—Garage.—Jacob & Levy will repair brick garage at 603 W. Broad St.; cost \$4900.

### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Bessemer.—Atlanta, Birmingham & Atlantic Railroad, Alexander Bonnyman, general manager, Atlanta, Ga., will issue \$5,000,000 in receivers' certificates, of which \$800,000 will be expended for improvements, including \$25,000 interlocking plant; owns 200-acre tract. (Extensive improvements recently outlined.)

N. C., Spencer.—Southern Railway, B. Herman, chief engineer, Washington, D. C., will build concrete coal chute, sand plant and elder pits; coal chute will have storage capacity of 600 tons in pockets on top chute and 100,000 tons on foundation floor; provision made to unload cars in hoppers; four coaling tracks available for locomotives.

### ROAD AND STREET WORK

Ala., Courtland.—Lawrence County Commissioners receive bids until 2 P. M. August 12 for construction of about 10 miles water-bound macadam road; M. S. Bingham, resident State highway engineer, Hillsboro, Ala. (See "Machinery Wanted.")

Ala., Cullman.—Cullman Realty Co. awarded contract to Mullarky Construction Co. of Ensley, Ala., to construct 2000 yards sidewalks.

Ala., Cullman.—Cullman county will macadamize two of principal public roads; expenditure, \$8000; R. I. Burke, Judge of Probate of Cullman. (See "Machinery Wanted.")

Ala., Mobile.—Mobile county will construct five miles of Halls Mill Rd.; Board of Revenue receives bids until August 25. (See "Machinery Wanted.")

Ala., Mobile.—Mobile County Commissioners authorized building of Citronelle-Mt. Vernon Rd.; length 14 miles.

Ala., Montgomery.—R. P. Boyd, assistant State Highway Engineer, is preparing plans for driveway around wing of State Capitol and to encircle monument; walks will be built from steps of north wing and on both sides of monument; \$2500 available; date of opening bids not decided.

Ala., Opelika.—Lee County Commissioners awarded contract to W. H. Wynn of Dadeville, Ala., to build road beginning at city limits and extending probably 4½ miles on Beulah Rd.; \$8000 available; W. S. Keller, State Highway Engineer, Montgomery, Ala.

Fla., Orlando.—Orlando District of Orange county contemplates voting on \$350,000 bond issue to construct 40 miles brick roads. Address County Commissioners.

Fla., Pensacola.—City will construct 30,000 square feet concrete crosswalks; Board of Public Works receives bids until August 27; L. Earle Thornton, City Engineer, Room 203 City Hall. (See "Machinery Wanted.")

Fla., West Palm Beach.—W. E. McElroy, Pompano, Fla., Commissioner Fifth District, Board of County Commissioners, states it is contemplated to widen 70-mile hard-surfaced road from 9 to 16 feet; Hutson B. Saunders, Jr., clerk, may be addressed, West Palm Beach. (See "Machinery Wanted.")

Ga., Blakely.—City awarded contract to Baughn & Thrash, Tipton, Ga., for concrete sidewalks; 4000 yards or more.

Ga., Lexington.—Oglethorpe county votes August 21 on \$40,000 bond issue for road construction; W. J. Knox, Commissioner Roads and Revenues.

Ky., Madison.—City contemplates paving Main St. Address The Mayor.

Ky., Mount Sterling.—City awarded contract to Central Construction Co. of Lexington, Ky., to pave Bank and Locust Sts. with brick; 4700 square yards; W. A. Samuels, Mayor. (Call for bids lately noted.)

Ky., Winchester.—City has, it is reported, awarded contract to Daniels, Lytle & Douglas of Anderson, Ind., at \$35,555 to pave Main St. with brick.

La., Plaquemine.—Iberville Parish Police Jury will construct gravel road from White Castle to Ascension line; will grade road and distribute gravel on top; material furnished by Police Jury and work of distribution by property owners. (Appropriation of \$45,000 recently noted.)

Md., Baltimore.—City awarded contract to United States Asphalt Refining Co., Brooklyn, Md., at \$66,522.50 to pave Park Ave., Lanvale St., etc., included in contract No. 32. (Call for bids lately noted.)

Md., Baltimore.—City will grade, curb and pave Front St. from Hillen to High and from Exeter to Forrest St., and High St. from Hillen to Front St., with granite block; 5300 square yards; contract No. 36; bids received until August 11; B. Keith Compton, chairman Paving Commission. (See "Machinery Wanted.")

Md., Brunswick.—City awarded contract to Ambler, Davis & Co. of Philadelphia, Pa., at about \$16,000 to construct 5400 feet of asphalt paving on High and Wenner Sts. and Potomac Ave.

Md., Westminster.—State Roads Commission, 534 N. Howard St., awarded contract to Freeb & Allen at \$14,941.88 to construct section of State highway upon or along Sam's Creek Rd. between Woodbine and Day, 1.50 miles, and to Thomas, Poole & Hunter at \$13,545 section upon or along Middleburg Rd. from Middleburg Station to Mount Union, 1.53 miles; all in Carroll county. (Call for bids lately noted.)

Miss., Bolton.—District No. 2 of Hinds county (including Bolton and Edwards) will vote on \$100,000 bond issue for road construction. Address County Commissioners, Jackson, Miss.



Miss., Heidelberg.—Vesper county will receive bids September 2 for construction of 40 miles road recently noted; Richard C. Huston, consulting engineer, 630 Exchange Bldg., Memphis, Tenn.; Sam Abrey, Heidelberg, official in charge. (See "Machinery Wanted.")

Miss., Meridian.—City voted \$35,000 bond issue for street improvement; J. W. Parker, Mayor.

Miss., Okolona.—Commissioners, Third District, Chickasaw county, will construct proposed graded and gravel roads; 10 miles, more or less; about 30,000 cubic yards earth excavation; novaculite gravel; bids received until 12 M. August 22; H. P. Farrer, engineer; J. S. Rowe, Charles Evans and Alexander Creighton, Commissioners. (See "Machinery Wanted.")

Mo., Pittsburg.—City awarded contract to Thogmartin & Gardner of Fort Scott, Kans., to pave Jefferson Ave.

Mo., Poplar Bluff.—City will pave 20 blocks, expending \$83,000. Address The Mayor.

N. C., Spencer.—City awarded contract to J. M. McCrary & Co. of Atlanta, Ga., to construct several blocks of cement sidewalks; R. I. Dickens of Asheville, N. C., is in charge.

S. C., Charleston.—City will construct 10,000 square yards brick and asphalt-block paving; committee on streets receives bids until August 29; J. H. Dingle, City Engineer. (See "Machinery Wanted.")

Tenn., Memphis.—Shelby County Commissioners received bids until August 7 for hauling and spreading gravel and day work for turnpike repairs for 1912.

Tex., Abilene.—City voted \$30,000 bond issue to extend improved roads into city limits and connect with paved streets; E. N. Kirby, Mayor. (Recently mentioned.)

Tex., Gonzales.—Gonzales County Commissioners have \$150,000 available for constructing 75 to 100 miles of gravel or macadam roads in District No. 1; probably open bids November 15; contract for engineering recently noted awarded to Tips & Burchard, Box 194, Gonzales. (See "Machinery Wanted.")

Tex., Paris.—Commissioners' Court advises Manufacturers Record that Lamar county will not vote on bond issue; recent report concerning bond issue for road construction was erroneous. (Contract for constructing 42 to 48 miles of road awarded to O'Neil Engineering Co., Paris, as was stated.)

Tex., Port Arthur.—City, L. D. Heckman, Clerk, receives bids until 10 A. M. August 21 for proposed paving on Houston Ave. and on Proctor St.; specifications calling for wearing surface of vitrified brick, Texas sheet asphalt, creosoted wood blocks, asphaltic concrete or natural rock asphalt. (See "Machinery Wanted.")

Tex., Sherman.—Grayson County Commissioners awarded contract to Larkin Construction Co. of Denison, Tex., at \$253,019.40 to construct 75 miles macadamized roads in Sherman Precinct; 12 miles are within city limits of Sherman. (Lately mentioned.)

Tex., Taylor.—City will pave about 15 blocks of streets; material to be vitrified brick, sheet asphalt, bitulithic, concrete, creosoted wood block and asphaltic concrete; D. L. Noble, City Secretary, receives bids until August 12. (See "Machinery Wanted.")

Va., Dublin.—Dublin Magisterial District voted \$100,000 bond issue for road construction. Address Road Commissioners. (Recently mentioned.)

Va., Gordonsville.—City postponed date of opening bids for macadamizing Main St. from July 24 (as recently stated) to August 26; S. Marcus, chairman street committee. (See "Machinery Wanted.")

Va., Kenbridge.—Lunenburg county voted \$40,000 bond issue for road improvement. Address County Commissioners at Lunenburg, Va.

Va., Onancock.—Ashton Fletcher, Jenkins Bridge, Va., chairman Atlantic District Road Board, advises that Atlantic District, Accomac county, voted to expend \$50,000 on roads within next five years; probably shell roads, with grading and bridges; work to be commenced late in October or early in November; need some machinery and an overseer. (See "Machinery Wanted.")

## SEWER CONSTRUCTION

Ala., Athens.—City will extend sewer and water mains; former includes laying 1350 feet 12-inch, 2500 feet 10-inch, 8825 feet 8-inch and 330 feet 6-inch sanitary sewers; 50 manholes, flush tanks and lampholes; bids received until August 9; bond issue of \$38,000 recently noted voted for sewer and water-main extension and installing electric-light

plant; Lifford Cole, City Clerk. (See "Water-works" and "Machinery Wanted.")

Ga., Adel.—City has, it is reported, voted \$15,000 bond issue for sewer construction. Address The Mayor.

Ga., Douglas.—City will open bids about middle of September for previously-noted sewer construction; cost \$10,000; plans completed about August 15; engineer, Arthur Pew, Atlanta, Ga.

La., New Orleans.—City will construct reinforced concrete siphon under New Basin Navigation Canal at Broad St.; contract No. 45-D; Sewerage and Water Board, 508 City Hall Annex, receives bids until August 24; George G. Earl, general superintendent. (See "Machinery Wanted.")

Miss., Meridian.—City voted \$10,000 bond issue to supply sewerage and water to streets proposed to be paved; J. W. Parker, Mayor.

Miss., Meridian.—City will construct sanitary sewer on Twentieth Ave. and 18th St.; 710 linear feet 8-inch vitrified sewer, 2 manholes and 28 6x7 "y" branches and 2-inch flush valve; C. W. O'Leary, City Clerk. (See "Machinery Wanted.")

Mo., Kansas City.—City awarded contract to Foxall P. McCormick at \$54,000 to construct first section of South Brush Creek sewer; reinforced concrete pipe.

N. C., Charlotte.—City awarded contract to Myers & Dabbs at \$38,000 to construct sewers in permanent improvement districts.

N. C., Dunn.—City voted \$50,000 bond issue to construct sewer system; Gilbert C. White of Charlotte, N. C., consulting engineer.

N. C., Smithfield.—City received bids and awarded materials contracts for sewer system and water-works; bids recently noted. (See "Water-Works.")

Okla., Skiatook.—City, A. W. Lucas, Mayor, will construct sewer system; \$9000 bond issue recently noted voted.

Tex., Rosenberg.—City Council engaged M. G. Rugeley of Wharton, Tex., to make surveys and establish levels for drainage system.

Tex., Waco.—City voted \$35,000 bond issue to construct storm sewers; George E. Byars, City Engineer.

Va., Norfolk.—Seventh Ward Local Board of Improvements awarded contract to Whit T. Tunstall at \$18,807.20 for sewer and water pipe completions in Seventh Ward.

Va., Pulaski.—City votes September 11 on \$50,000 bond issue to construct sewer system. Address The Mayor. (Recently mentioned.)

## TELEPHONE SYSTEMS

Ala., Birmingham.—Southern Bell Telephone & Telegraph Co., D. F. Turnbull, local manager, purchased properties of People's Home Telephone Co. for \$450,000.

La., New Orleans.—United Fruit Co., C. H. Ellis, manager, purchased 20 acres on which to build wireless telegraph station; four steel towers for wireless aeras for speaking to far-away points and relays, and two complete stations for sending messages to ships at sea; station to be of 50-kilowatt power, long-distance towers having wave length of about 1500 miles; short-distance apparatus to be capable of speaking to ships at sea about 300 miles from coast; surrounding land to be improved as park; expenditure, \$150,000 to \$250,000.

S. C., Georgetown.—Farmers' Telephone Co., incorporated by H. B. Springs, W. T. Turbeville and M. W. Pyatt.

N. C., Scotland Neck.—Carolina Telephone & Telegraph Co., C. P. McClure, general manager, Tarboro, N. C., will improve local telephone exchange; proposes installing common battery system.

S. C., Anderson.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) will construct cables over practically entire city at estimated cost of \$25,000, add two new sections to switchboard, etc.

S. C., Georgetown.—Farmers' Telephone Co., capital \$1500, incorporated; W. T. Turbeville, president; Holmes B. Springs, secretary-treasurer.

S. C., Holly Hill.—Holly Hill Telephone Co., capital stock \$15,000, incorporated by S. J. McCoy, E. Murray, J. F. Felder and others.

Tex., Austin.—South Texas Telephone Co. reorganized with J. B. Earle, president, Waco, Tex.; Ben C. Hyde, vice-president, Kansas City, Mo.; E. C. Blomeyer, secretary, Waco, Tex.; company owns about 500 miles long-distance independent toll lines connecting larger cities of South Texas and has local exchanges in Port Arthur and Nacogdoches; will make various improvements.

Tex., Dallas.—Dallas Automatic Telephone Co. petitioned City Commission for approval

of increase of \$200,000 in capital stock and issuance of \$250,000 of bonds in addition to \$500,000 previously authorized; proposes to enlarge telephone exchange.

W. Va., Wheeling.—Consolidated Telephone Co., capital stock \$2,000,000, incorporated by John L. Dickey, Samuel W. Harper, W. C. Hendlan and others.

## TEXTILE MILLS

Ga., Albany.—Cotton Goods.—Albany Cotton Manufacturing Co., recently reported incorporated with \$110,000 capital stock, is being formed to take over Albany Cotton Mills under reorganization plan.

Ga., Augusta.—Cotton Cloth.—Riverside Mills will erect additional building costing \$17,000. (Recently reported as to make improvements.)

Ga., Cedartown.—Cotton Goods.—Waukesha Mills, capital stock \$25,000, incorporated by L. S. Ledbetter and E. C. Benton of Cedartown, L. O. Benton and Eugene Benton of Monticello, Ga.

Ga., Dallas.—Hosiery Yarn.—Pauding County Cotton Manufacturing Co. contemplates adding 5000 spindles; now has 10,143 spindles, etc.

Ga., Newnan.—Cotton Yarns.—McIntosh Mills completed plans to install electrical equipment; has ordered machinery, including 17 motors of 5 to 100 horse-power; three 200 and two 15 K. V. A. transformers, etc. (Previously reported as to add new spindles, etc.)

N. C., Roanoke Rapids.—Damask, etc.—Rosemary Manufacturing Co. has decided to build additional mill lately reported under consideration; will have plans ready by September 1. (Is proceeding with enlargements recently announced.)

N. C., Randleman.—Sheeting.—Deep River Mills contemplates adding 100 looms; will build electric power plant costing \$60,000 for company's three plants, and has awarded contracts.

S. C., Greenville.—Sheeting, etc.—Brandon Mills increased capital stock from \$1,000,000 to \$1,500,000; will add 10,000 spindles and 200 looms in present building; has awarded contract.

S. C., Union.—Cotton Cloth.—Union-Butt Mills Co. holds stockholders' meeting on August 29 to vote on increasing capital stock from \$7,000,000 to \$8,500,000; meeting at office, 490 Broome St., New York.

Tex., Denison.—Sheeting, etc.—Denison Cotton Mill Co. will add machinery, to include 50 looms, 2000 spindles, etc., costing \$26,000; has awarded contracts.

## WATER-POWER DEVELOPMENTS

Ala., Gadsden.—Alabama Power & Development Co. is reported as perfecting plans for construction of auxiliary plant on Coosa River about two miles from Gadsden.

Ky., Williamstown.—Williamstown Electric Light Co., J. E. Shoop, manager, present address, 227 N. 4th St., Danville, Ky., will construct electric-light plant; cost of dam and power-house, \$2000; total cost of plant, \$5000; operate by oil engine; no building contract. (Recently noted under "Electric Plants." See "Machinery Wanted.")

N. C., Hendersonville.—Appalachian Power Co., Ladshaw & Ladshaw, engineers, Spartanburg, S. C., purchased 1200 acres, including Narrows and Potts Shoals on French Broad River near Hendersonville; price said to be \$180,000; plans to construct hydro-electric plant developing 50,000 horse-power for transmission by electricity; reported that \$1,500,000 will be invested; A. L. White, Geo. T. Ladshaw, Herace Bomar, John A. Law and others, all of Spartanburg, are interested. The engineers wire Manufacturers Record that they are not ready to announce development details. (Company previously mentioned as planning water-power development.)

N. C., Whitney.—Southern Aluminium Co. wires Manufacturers Record it has awarded contracts to complete hydro-electric plant (former Whitney Company proposition), developing 45,000 horse-power and to build aluminum works. (For further details see "Metal-working Plants.")

## WATER-WORKS

Ala., Athens.—City will extend water and sewer mains; water mains will include 12,750 feet 4-inch and 2850 feet 6-inch cast-iron water mains and 80 specials; bids received until August 9; Lifford Cole, City Clerk; bond issue of \$38,000 recently noted voted for water and sewer main extensions and installing electric-light plant. (See "Machinery Wanted.")

Ala., Tuscaloosa.—City contemplates improving water-works and increasing supply; Morris Knowles of Pittsburg, Pa., engineer, will investigate present system.

Ark., Tuckerman.—City engaged Richard C. Huston, 630 Exchange Bldg., Memphis, Tenn., to prepare plans for water-works and electric-light plant previously noted.

D. C., Washington.—Government awarded contract to William F. Cuth, 3210 Volta Pl. N. W., Washington, for excavating, building dam and construction necessary in remodeling Georgetown reservoir; W. C. Langfitt, Lieut.-Col., Engineers, U. S. Engineer Office, 920 17th St. N. W.

Fla., St. Petersburg.—City will build water plant on water-front; drill two wells; cost about \$6000, including cost of laying pipe to connect wells with city mains. Address The Mayor. (Recently stated to have voted \$25,000 bond issue for water-works improvements.)

Ga., Augusta.—Water-works committee receives proposals until 4 P. M. August 11 for laying pipe, etc., on various streets; about 4500 linear feet 10-inch, 9000 feet 8-inch and 10,500 feet 6-inch pipe; Nisbet Wingfield, City Engineer and Commissioner Public Works. (See "Machinery Wanted.")

Ga., Augusta.—City will construct reservoir on water-works property in Sixth Ward; City Council receives bids until August 14; Nisbet Wingfield, City Engineer and Commissioner of Public Works. (See "Machinery Wanted.")

Ga., Douglas.—City will expend \$15,000 on extensions and improvements to water and light plant; probably greater part of expenditure on power plant. (Arthur Pew, Atlanta, Ga., recently noted as engineer.)

Ga., La Grange.—City awarded contract to Pike Bros. Lumber Co. for extension to water-works; erect two buildings; 100x50 feet; one and two stories; steel and brick; cost \$30,000; J. D. Edmondson, Mayor. (Recently noted as to vote in September on \$215,000 bond issue for water-works, gas plant and schools.)

Ga., Macon.—City awarded contract to R. A. Smalling & Sons of Macon at \$8,174.50 to construct Riverside pumping station; 2 stories; 45x50 feet; reinforced concrete; steel truss, tar and gravel roof; machinery purchased; plans by Curran R. Ellis. (Recently mentioned.)

Ga., Macon.—City will lay about 35 miles of water mains in East Macon, North Highland and Vineville; Mr. Langworthy, engineer, will prepare schedules of extensions and cost; W. H. Fetner, chairman Water Commissioners.

La., Thibodaux.—City will extend water-works, supplying water to Catholic church, college and other property; Finance Committee authorized issuance of \$4000 of certificates. Address The Mayor.

Miss., Meridian.—City voted \$10,000 bond issue to supply water and sewerage to streets proposed to be paved and defeated \$100,000 bond issue for repairing reservoir and for other purposes; J. W. Parker, Mayor.

N. C., Elkins.—City will petition Legislature for permission to issue bonds for constructing water-works to cost about \$50,000; R. J. Lewellyn, Mayor. (Recently noted.)

N. C., Smithfield.—City received bids for water-works, sewer system and electric-light plant; awarded contract for boilers to R. D. Cole Manufacturing Co., Newnan, Ga.; pipe, Glamorgan Pipe & Foundry Co., Lynchburg, Va.; hydrants and valves, Columbian Iron Works, Chattanooga, Tenn.; tower and tank, Jas. S. Schofield's Sons, Macon, Ga.; contracts for construction and electrical work not yet let; B. C. Copeland low bidder on construction work; engineer, Gilbert C. White, Charlotte, N. C. (Call for bids recently noted.)

Okla., Calvin.—City defeated \$17,500 water-works bond issue. Address The Mayor. (Recently mentioned.)

Okla., Perkins.—City will construct water-works; issued \$20,000 of bonds. Address The Mayor.

S. C., Columbia.—City awarded contract to George W. Waring of Columbia at \$26,963 to construct coagulating basin; concrete; 70x100 feet, divided longitudinally, and 12 feet deep; headhouse brick, 20x70 feet; F. C. Wyse of Columbia, engineer-superintendent. (Call for bids lately noted.)

Tex., Dallas.—City receives bids until 2 P. M. August 26 for construction of previously-noted water-purification plant at Turtle Creek pumping station; plans, etc., at office of Jas. H. Fortes, 130 Nassau St., New York, or with City Secretary, J. B. Winslett. (See "Machinery Wanted.")

Tex., Dallas.—Johnson City Water Co. awarded contract to F. R. Stone & Co. to

construct 13 miles of 16-inch cast-iron pipe from city to Big Blue Springs in Unicoi county; supply 4,000,000 gallons water daily; estimated cost \$375,000.

Tex., Galveston.—Government invites bids for construction of four-inch cast-iron water main to supply water to United States quarantine station at Pelican Island; specifications include lead-protected cable for carrying electric light and telephone wires to station, about 5000 feet, and for installing gasoline engine; water main connection is to be made with present trans-channel water main and cable of United States immigration station on Pelican Island; estimated cost \$20,000; S. Chaplin, superintendent of construction.

Tex., Henrietta.—City will construct gas and steam pumping plant with 3,000,000-gallon single-stage centrifugal pump and 85-horse-power engine; 12, 8 and 6-inch cast-iron pipe with special, 150 and 100-gallon-per-minute triplex pump, 10-horse-power gas engine, etc.; Fountain Shaw Engineering Co., Southwestern Life Bldg., Dallas, Tex., in charge; bids received until August 12. (See "Machinery Wanted.")

Va., Lynchburg.—State awarded contract to Tucker & Laxton, Realty Bldg., Charlotte, N. C., to construct pumping plant and pipe line across James River at Lynchburg.

Va., Norfolk.—Seventh Ward Local Board of Improvements awarded contract to Whit T. Tunstall at \$18,807.20 for water and sewer pipe completions in Seventh Ward.

W. Va., Grafton.—City Council rejected bids for construction of water and electric-light plant and will invite new proposals; appropriation \$90,000; engineer, Riggs & Sherman Company, Toledo, O.; W. C. Hanway, City Clerk. (Call for bids lately noted.)

W. Va., Milton.—City voted \$10,500 bond issue for water-works construction; E. B. Irwin, Mayor, states that upon sale of bonds city will buy materials and contract the work, which will be under supervision of local manager. (See "Machinery Wanted.") Previously mentioned.

W. Va., Wayne.—Wayne Light, Heat & Water Co. (recently noted incorporated) contemplates construction of water-works next spring. (See "Gas and Oil Developments.")

W. Va., Wheeling.—Wheeling Traction Co., Harry B. Warfield, president, is arranging for water supply; orders placed for necessary equipment, including pipe, with which three wells at Fulton will be connected.

### WOODWORKING PLANTS

Ark., Hope.—Baskets and Crates.—Hope Basket & Crate Co. will enlarge plant and increase capacity.

Ark., Newport.—Staves.—Weldon Stave Co., capital stock \$5000, incorporated by L. C. Baxter, V. O. Jones, W. D. Muirhead and C. W. Muirhead.

Fla., Inverness.—Crates.—Baum & Van Roy Crate Co. will build factory.

Ky., Campbellsville.—Spokes and Rims.—J. Allen Russell will establish spoke and rim factory; main building, 25x90 feet; engine and boiler rooms, sheds, etc.; machines to manufacture 12,000 spokes daily.

N. C., Barnard.—Handles.—French Broad Handle Co., capital stock \$25,000, incorporated by R. P. Walker, W. A. Walker, D. B. Linkous and Roberts Reese.

N. C., High Point.—Tables.—Lindsay Table Co., capital \$50,000, incorporated by J. A. Lindsay, Maude M. Lindsay and R. F. Jones.

Tex., Denison.—Boxes, etc.—Denison Box & Manufacturing Co. contemplates improvements.

Va., Bristol.—Table Tops, etc.—Wilkinson Matthews Company, J. H. Matthews, president, Damascus, Va., will make improvements to plant for manufacturing plain and quartered oak table tops and chestnut cores; daily capacity 30,000 feet finished table tops; materials purchased. (Recently reported incorporated under "Lumber Manufacturing" with \$50,000 capital stock.)

Va., Petersburg.—Boxes.—Appomattox Box & Shook Co. awarded contract to Harrison Construction Co. of Petersburg to build plant; main building 110x267 feet; frame; brick foundations; brick pillars; other buildings to include brick power-house and brick boiler-house; site comprises 20 acres.

### BURNED

Ky., Louisville.—Martinsville Sanatorium, 656 S. 4th St.; Dr. W. W. Klein, superintendent; loss \$3000.

Ky., Minerva.—Robert Whipp's residence; loss \$3000.

La., Alexandria.—Little River Lumber Co.'s sawmill.

La., Kentwood.—W. J. Brumfield's residence; Harry Grigg's residence.

La., Ruston.—J. W. Davis' dwelling; loss \$3000.

Md., Fruitland.—Ernest Moore's shirt factory.

Md., Salisbury.—J. Ernest Moore's overall factory; loss \$3000.

Miss., Newton.—Newton Hotel, owned by estate of A. M. Byrd, J. A. McCain and Louis Arky, Meridian, Miss.

Miss., West Point.—Apartment-house on East St., owned by R. C. Beckett, Hot Springs, Ark.

N. C., Dunn.—Dupree-Massengill Lumber Co.'s main building of planing mill.

N. C., High Point.—Columbia Furniture Co.'s finishing plant and office building.

Tenn., Knoxville.—F. B. Cooley & Son's planing mill at 402 Chamberlain St.

Tenn., Memphis.—Stores occupied by Joe Levitch and Mrs. F. Orsl, 879-SI Walker Ave., owned by Edward Yarborough; loss \$3000.

Tenn., Sparta.—First National Bank, post-office, store of Hatcher Bros.; loss \$100,000.

Tex., Amarillo.—Panhandle Cadillac Co.'s garage; loss on building, \$10,000.

Tex., Beaumont.—Gordon Bldg., containing

P. J. Cailoudette's studio, Sidney Mayer's cigar store, London Woolen Mills Co.'s store, etc.; loss about \$50,000.

Tex., Cleburne.—Home Steam Laundry; Hutcherson & Wilson, proprietors; loss \$10,000.

Tex., Jefferson.—J. N. Henderson's residence.

Tex., Malakoff.—S. A. Hall's hotel; loss \$3500.

Tex., Sherman.—Three buildings owned by Mrs. J. D. Woods; loss \$7500.

Tex., Taylor.—Dwelling occupied by Mrs. T. J. Smith and owned by John P. Sturgis; loss \$6000.

Va., Altavista.—Kelly-Duffield Handle Co.'s plant; loss about \$15,000.

Va., Buena Vista.—Buena Vista Light & Power Co.'s plant; loss \$5000.

Va., Culpeper.—G. G. Long's feed and grist mill, loss about \$20,000; Culpeper Grocery Co.'s building, owned by E. H. Gibson, loss about \$9000 on building.

W. Va., Rayland (not a postoffice).—Pittsburgh-Buffalo Company's coal tipple and power-house at Rayland mine; main office, Pittsburgh, Pa.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ky., Louisville.—Edwin G. Morgan will erect apartment-house on St. James Court to replace burned structure.

Ky., Louisville.—George Deckman will erect apartment at 230 E. Market St.; two stories; brick; cost \$9000.

Ky., Winchester.—Vic Bloomfield will erect apartment-house at Burns and Fairfax Sts.; at least eight apartments.

Mo., St. Louis.—William H. Kruse will erect four two-story tenement-houses at 2632-2638 Minnesota St.; cost \$12,000.

Mo., St. Louis.—J. P. Hannon will erect two-story tenement-house at 3921-21A Palm St.; cost \$6000.

Mo., St. Louis.—August Beckemeier will erect five and six-room single apartment-house on Natural Bridge road.

Mo., St. Louis.—Clem Fister will erect apartment-house on Jefferson Ave. between Sullivan Ave. and Herbert St.; cost \$6000.

Mo., St. Louis.—J. H. Stroh will erect apartment-house at 3616 Bamberger St.; two stories; cost \$4600.

Mo., St. Louis.—H. F. Lulpe and F. W. Lulpe will erect four apartment-houses at 1800-08 Michigan Ave.; two stories; cost \$14,000.

Mo., St. Louis.—Jos. Dagenhardt will erect two-story brick tenement-house at 4200-00A Hartford St.; cost \$4800.

Tenn., Memphis.—Rev. Dr. H. P. Hurt is having plans prepared by John Gaisford for two flat buildings on Monroe Ave.; two stories; four-room apartments; cost \$15,000.

Tenn., Nashville.—Asmus & Norton, architects, Nashville, are receiving bids to erect two-story apartment-house on Terrace Pl. for Misses Etta and Dora Bloomstein; red brick and stone trimmings; slate roof; hardwood floors; hot-water heating. (Lately noted.)

Texas, Waco.—Mrs. George D. Streeter has plans by Roy E. Lane for two apartment-houses on N. 5th St.; two stories; brick; four apartments each; cost \$18,000.

Va., Norfolk.—Homer Moore states contract to erect apartment-house and studio was not awarded to Turpin Bros., as recently reported.

Va., Richmond.—Company is being organized to erect apartment hotel at 6 N. 5th St.; 78x106 feet; Gothic style; 110 apartments with one room and bath to three rooms, bath and kitchenette; total of 186 rooms, 118 private baths and 62 kitchenettes; latter to be equipped with gas ranges, sink, china-closet and built-in refrigerator; interior to be finished in marble wainscoting, terrazzo floors, etc.; faced on exterior with white glazed terra-cotta; total cost, \$250,000; plans by Marcus Hallett, Mutual Bldg., Richmond.

#### ASSOCIATION AND FRATERNAL

Md., Hagerstown.—Potomac Lodge, Independent Order of Odd Fellows, will erect lodge building; J. D. Wolfinger and W. W. McCauley, committee.

Mo., Springfield.—Young Men's Christian Association will open bids August 15 to erect four-story building; plans by Miller, Opal & Torbitt, Merchants' National Bank Bldg., Springfield; cost \$60,000. (Lately noted.)

Mo., Neosho.—Neosho Lodge, No. 247, Ancient Free and Accepted Masons, will expend \$7000 to erect new building, 25x100 feet, and remodel present building; steam heat; electric lighting; gravel roof; plans by Reed & Heckenlively, Springfield, Mo. (Recently noted to receive bids addressed to C. E. Prettymann until August 9.)

Tenn., Fountain City.—Bright Hope Lodge, Ancient Free and Accepted Masons, will erect building 30x80 feet; two stories; ordinary construction; stoves; electric lighting; slate roof; plans by Baumann Bros., Knoxville, Tenn.; bids opened August 5. (Recently noted.)

Tenn., Memphis.—Order of Ancient Free and Accepted Masons has plans by Jones & Furbringer, Memphis, for lodge building; six stories; tiled roof garden; first story Roman shaped semi-glazed brick alternating with cream-colored terra-cotta; remainder of building gray mat brick surmounted with elaborate cornice; main entrance doors bronze with bronze lamp standards; Italian renaissance architecture; loggia will extend through two stories; two-story marble-lined lobby; fireproof construction; elevators; heating and ventilating system; electric lighting. (Previously noted.)

#### BANK AND OFFICE

Ga., Athens.—W. S. Holman is having plans prepared for office and store building. (See "Stores.")

Ga., Columbus.—Southern Express Co., 71 Broadway, New York, will erect building; brick; 40x80 feet.

Mo., Kansas City.—Dr. D. J. McMillen, president Western Dental College, has plans by L. G. Middaugh for office building at 11th and Locust Sts.; 132x192 feet; steel, brick and concrete construction.

N. C., Wilmington.—A. C. Schuster is reported as contemplating erection of office building; five or more stories.

N. C., Wilmington.—Murchison National Bank is considering erection of bank building to cost \$75,000 to \$100,000; plans not made.

S. C., Greenville.—Rowley & Miller have plans by Joe T. Lawrence, Greenville, to convert Mayberry house on South St. into store and office building; three stores on ground floor; 10 or 15 offices on second floor; steam heat; electric lights.

Tex., Fort Worth.—Guaranty Trust Co., organized by A. R. Sheffer and others will erect office building; probably 15 stories and basement; cost about \$400,000.

Tex., San Antonio.—Equitable Life Insurance Co. has plans by Altee B. Ayres, San Antonio, for office building; 70x90 feet; fireproof construction.

Tex., St. Jo.—First National Bank of St. Jo will open bids August 10 to erect two-story bank building; plans at office of Glenn

Bros., architects, Wichita Falls, Tex. (Lately noted.)

Tex., Victoria.—J. J. Welder will open bids October 1 (extended date) to erect store and office building; 94x87 feet; five stories and basement; fireproof construction; steam heat; electric lighting; bar-lock sidewalks; three elevators; tile roof and roof garden; cost \$200,000; plans by C. H. Page & Bro., Austin, Tex., and Hull & Praeger, Victoria, (Recently noted.)

Va., Norfolk.—Alvah H. Martin has plans by Lee & Diehl, Norfolk, for office building at Granby and Washington Sts.; eight stories; steel; light brick. (Previously noted.)

#### CHURCHES

Ala., Birmingham.—Fifth Avenue Presbyterian Church contemplates erection of church. W. M. Cosby is interested.

Ark., Argenta.—Dye Memorial Church, Rev. F. P. Jernigan, pastor, will erect edifice.

Ark., Batesville.—Methodist church, Rev. T. Y. Ramsey, pastor, has plans by John Gaisford, Memphis, for church and Sunday-school; seating capacity of church, 400; of Sunday-school, 750. (Lately noted.)

Ark., Conway.—Methodist church, Rev. E. R. Steele, pastor, has plans by John Gaisford, Memphis, for church; brick and stone; tile roof; cost \$40,000.

Fla., Pensacola.—First Christian Church will erect edifice at Seventh Ave. and Gadsden St.; cost \$20,000; plans by G. W. Kramer, 1 Madison Ave., New York.

Fla., West Palm Beach.—Methodist congregation, Rev. W. P. Buhrman, pastor, is having plans prepared for edifice; cost \$9000; construction in December. (Recently noted.)

Ky., Louisville.—Chestnut Street Baptist Church, Rev. J. D. Greene, pastor, will erect edifice on Broadway between 7th and 8th Sts.

La., New Orleans.—Dominican Fathers will erect edifice; frame; cost \$3000.

La., New Orleans.—First Church of Christ, Scientist, purchased site at Nashville Ave. and Garfield St. and will erect edifice; plans being prepared; R. C. Love is interested. (Lately noted.)

Tenn., Columbia.—First Presbyterian Church has plans by D. Anderson Diekey, Nashville, Tenn., to remodel edifice.

#### CITY AND COUNTY

Md., Annapolis.—Jail.—Jail Commission, Nicholas H. Green, chairman, will receive bids addressed to Mr. Green at office of County Commissioners, Courthouse, Annapolis, until August 23 to erect jail; plans and specifications on file after August 8 at office of Theo. W. Pletsch, architect, American Bldg., Baltimore, Md., or may be had at office of chairman upon deposit of \$50. (Lately noted.)

Md., Baltimore.—Service Building.—Board of Awards, James H. Preston, president, will receive bids at office of Richard Gwinn, City Register, until August 14 for material and erection of service building at Bayview Asylum; certified check for \$500, payable to Mayor and City Council; drawings and specifications at office of C. E. Stubbs, Inspector of Buildings, City Hall.

N. C., Winston-Salem.—Hospital.—City appointed Dr. C. S. Lawrence, Dr. Everett Lockett and Dr. D. N. Dalton building committee to obtain plans for hospital building on E. 4th St. (City lately noted as voting \$90,000 bond issue for hospital.)

Tex., Dallas.—Fire Station.—City will open bids August 16 to alter and remodel central fire station recently noted; cost \$15,000; plans on file at office of Architects Lang & Wittich, Dallas; certified check \$300; city also purchased site 59x100 feet at Forest Ave. and Kimble St. for fire station to cost \$8500; plans by H. B. Thomson; J. B. Winslett, City Secretary.

Va., Bristol.—Jail.—City purchased site for \$6000 and will erect jail; W. L. Rice, Mayor.

W. Va., Wheeling.—Fire Station.—City will erect central fire station. Address Board of Control.

#### COURTHOUSES

Ark., Fort Smith.—Sebastian County Commissioners will open bids August 8 to erect courthouse; plans and specifications on file at office of J. T. W. Jennings, architect, Fort Smith, and office of County Clerk; bids must be accompanied by certified check for not less than 2 per cent. of total amount of bid. (Previously noted.)

Fla., Pensacola.—Treasury Department, O. Wenderoth, supervising architect, Washington, D. C., will receive bids until September 4 to erect addition to and remodel postoffice



and courthouse. (See "Government and State.")

### DWELLINGS

Ala., Birmingham.—D. B. Alraft will erect two residences on Ave. D and 40th St.; one story; frame; cost \$8800.

Ala., Birmingham.—B. Roberts will erect residence on S. Cliff Rd. and Glenview; two stories; brick veneer; cost \$3500.

Ala., Birmingham.—L. B. Liftowitch will erect two dwellings at 2817-2819 N. 11th St.; one story; frame; cost \$3250.

Ala., Birmingham.—E. C. Adams will erect two-story residence on 31st St. between 13th and 14th Sts.; cost \$3720.

Ala., Montgomery.—W. M. Lewis has plans by C. Frank Gallher, 326 Bell Bldg., Montgomery, to erect dwelling on Herron St.; six rooms.

Ala., Tuscaloosa.—Kaul Lumber Co., main offices, Birmingham, Ala., will erect 50 dwellings and hotel in connection with model industrial city; plans prepared.

D. C., Washington.—H. B. Hownstein Company, 131 F St. N. W., will erect two detached dwellings for Arthur C. Moses, "Highwood," Chevy Chase, Md.; Queen Anne style architecture; 50x112 feet each; granite foundation; first story of stucco, upper floor shingles; cost \$10,000.

Fla., Jacksonville.—J. H. Kruger will erect residence corner Riverside Ave. and Barrs St.; two stories; brick.

Fla., Miami.—Mr. Gamble of Christian & Gamble will erect residence.

Fla., Miami.—F. W. Chapman will erect residence on 12th St.

Fla., Miami.—J. C. Lanther will erect residence on 12th St.

Ga., Atlanta.—Turman, Black & Calhoun, agents for B. W. Grove, will erect eight dwellings in Fortified Hills; cost \$2500 to \$3500 each.

Ga., Atlanta.—W. J. Davis will erect two dwellings; frame; two stories; cost \$4000 each.

Ga., Atlanta.—Phoenix Investment Co., 605 Fourth National Bank Bldg., will expend \$30,000 to erect six eight-room residences, two stories each, and six six-room residences, one story each; ordinary construction; furnace; slate roof; plans by company's superintendent; day labor. (Recently noted to erect dwelling.)

Ga., Sandersville.—Marvin L. Gross will rebuild residence; eight rooms; ordinary construction; frame; cost \$4500. (Recently reported burned.)

Ky., Louisville.—Mrs. T. C. Robertson will erect frame dwelling at Tyler Park and Tyler Parkway; cost \$3500.

Ky., Louisville.—F. G. Porzig will erect frame dwelling at 129 S. 41st St.; cost \$3500.

Ky., Louisville.—C. L. Nelson will erect two-story stone and stucco dwelling on Cherokee Drive; cost \$15,000.

Ky., Louisville.—J. G. Reid will erect residence at 3403 W. Broadway; two stories; frame; cost \$3000.

Ky., Louisville.—H. W. Yates will erect residence at 2203 W. Broadway; two stories; frame; cost \$3000.

Ky., Louisville.—E. P. Thomas will erect two frame dwellings at 1704 Stevens Ave.; cost \$2000 each.

Ky., Louisville.—R. L. Hawes will erect 2½-story brick dwelling in Windsor Place; cost \$6000.

La., New Orleans.—Andrew T. Stafford will erect single two-story frame residence on Taylor Ave.; cost \$3000.

La., New Orleans.—N. J. Barrios will erect residence on West End Boulevard; cost \$3300.

La., New Orleans.—Independent Homestead Association will erect one-story frame residence; cost \$4149.

Md., Baltimore.—George S. Campbell, 201 Emerson Tower Bldg., has plans by Walter M. Gieske, 66 Gunther Bldg., Baltimore, for residence on Rolling Rd. near Catonsville; frame; 41x40 feet; stone foundation; slate roof; three tiled bathrooms; hot-water heat; electric lighting; porches, etc.; cost \$10,000; bids for construction opened August 16.

Md., Baltimore.—Walter L. Westphal, 1700 N. Bond St., will erect two-story dwellings on east side of Pulaski St. near Harlem Ave.

Md., Baltimore.—Miss Bertha Russell is having plans prepared by R. B. Mason, 210 E. Lexington St., Baltimore, for frame cottage on Bradnor Ave.; two and a half stories; stone foundation; slate roof; steam heat; cost \$3000.

Md., Baltimore.—Charles E. Litzinger will expend \$16,000 to erect eight dwellings; two

stories; steam heat; tin roof; plans by Frederick E. Beall, 213 St. Paul St., Baltimore; construction by owner. (Recently noted.)

Md., Baltimore.—Louis J. Roth, 111 N. Charles St., will expend \$20,000 to erect 8 dwellings; 20 feet four inches by 36 feet; brick; steam heat; gas and electric lighting; slag roof; plans by Edward C. Pretchelt, 111 N. Charles St., Baltimore; construction by owner. (Recently noted.)

Md., Baltimore.—Welsh Construction Co., 11 E. Fayette St., has plans by Henry J. Tinley, 312 N. Charles St., Baltimore, for 26 semi-detached dwellings on east and west sides of Ruxton Ave. near Windsor Mills Rd.; two stories; ornamental brick; marble trimmings; slag roofs; steam heat; 14x51 feet; cost \$50,000.

Mo., Kansas City.—E. W. Hayes will erect three stucco dwellings at 3631-33-37 Michigan St.; cost \$2500 each.

Mo., Kansas City.—Alexander Hutcheson will erect frame dwelling at 53 E. 53d St.; cost \$4500.

Mo., Kansas City.—H. W. Jackson will erect residence at 338 Jackson St.; stone veneer; cost \$4500.

Mo., Kansas City.—Reppell & May will erect residence at 421 W. 59th St.; stucco; cost \$10,000.

Mo., Kansas City.—Zura Building & Investment Co. will erect residence at 3934 Walrond St.; stucco; cost \$3000.

Mo., Kansas City.—Parlor Closet Bed Co. will erect three dwellings at 3825-7-9 Roanoke St.; stucco; cost \$2000 each.

Mo., Kansas City.—J. F. Albin will erect stucco residence at 5 W. 57th St.; cost \$4000.

Mo., Kansas City.—C. R. Munger will erect brick-veneer residence at 6815 Monroe St.; cost \$3000.

Mo., Kansas City.—H. F. Zahner will erect stucco residence at 3744 Penn St.; cost \$6000.

Mo., Kansas City.—H. L. Green will erect residence at 10 W. 58th St.; stucco; cost \$5000.

Mo., Kansas City.—H. D. Seay has plans by A. Van Brunt & Co., Kansas City, for residence; brick and stucco; English style; cost \$30,000.

Mo., St. Louis.—W. B. Franklin will erect residence at 5715 Waterman St.; two stories; cost \$5000.

Mo., St. Louis.—F. L. Dittmeier will erect two dwellings at 1935-39 Semple St.; cost \$4000.

Mo., St. Louis.—Edwin Nolte will erect four dwellings at 4133-45 Kossuth St.; two stories; cost \$15,000.

Mo., St. Louis.—E. F. Blewend will erect residence at 3319 Magnolia St.; two stories; cost \$5500.

Mo., St. Louis.—W. C. Bosquit will erect two two-story dwellings at 4275-77 Hartford St.; cost \$6000.

Mo., St. Louis.—Mary L. Gates will erect \$8000 residence in University City.

Mo., St. Louis.—Mrs. Margaret Hahn will erect two-story brick dwelling at 2907 Milton St.; cost \$8000.

Okla., Oklahoma City.—A. L. Aurelius, 1019 State National Bank Bldg., will expend \$3000 to erect residence; two stories; eight rooms; frame; furnace; electric lighting; concrete sidewalks; shingle roof; plans and construction by owner; contemplate erecting 20 more dwellings during the year. (Recently noted.)

Tenn., Knox County.—William Seward, Knoxville, Tenn., will open bids about August 10 to erect residence; 40x42 feet; ordinary construction; steam heat; electric lighting; shingle roof; plans by Baumann Bros., Knoxville. (Recently noted.)

Tenn., Lynnville.—Christian Church will erect parsonage; cost \$3000. Address The Pastor, Christian Church.

Tenn., Memphis.—Dr. E. A. Long will erect residence at 1628 Carr Ave.; cost \$5500.

Tenn., Memphis.—H. L. Coleman will erect residence at 287 Stonewall Pl.; cost \$5500.

Tenn., Nashville.—Lena L. Cox will erect veneered residence at Sixteenth Ave. and Hawkins St.; cost \$3000.

Tenn., Nashville.—C. E. Hunt will erect dwelling at 205 23d St.; brick; cost \$6500.

Tenn., Nashville.—Charles Nelson will erect residence at 914 S. Cherry St.; frame; cost \$5000.

Tenn., Nashville.—C. W. Smith will rebuild residence at Broadway and Second Ave.; cost \$8000.

Tenn., Nashville.—E. A. Glennon will erect residence at Nineteenth Ave. and Cedar St.; brick; cost \$9800.

Tenn., Nashville.—J. D. Pope will erect

two bungalows on Bench St.; cost \$5000; will also erect stucco bungalow at 1824 El-lott St.; cost \$3000.

Tex., San Antonio.—W. H. Wade will erect residence on N. Olive St.; two stories; cost \$3000.

Tex., San Antonio.—First United Presbyterian Church will erect parsonage; cost \$3000. Address The Pastor First United Presbyterian Church.

Tex., San Antonio.—F. A. Borden will erect two-story dwelling on Slocum Pl.; cost \$3200.

Va., Coeburn.—Dr. G. W. Dingle has plans and will soon award contract to erect nine-room residence.

Va., Coeburn.—R. P. Litz will erect brick and stone dwelling.

Va., Norfolk.—Joseph Stern has plans by Arnold Eberhard, Norfolk, for residence at Colonial Ave. and 13th St.; 35x64 feet; ordinary construction; brick; hot-water heat; slate roof; cost \$8000; bids opened August 7; architect may be addressed.

Va., Norfolk.—Bond, Mortgage, Security Co. will erect two two-story frame residences on 26th St.; cost \$2000 each; electric lighting; granolithic sidewalks; slate roof; plans and construction by owner.

Va., Richmond.—C. E. Sprengle will erect four detached dwellings on south side of Grove Ave. between West and Auburn Sts.; two stories; brick; cost \$24,000.

Va., Roanoke.—T. B. Griggs will erect residence; two stories; brick; cost \$3500.

Va., Roanoke.—A. Levinson will erect residence on Clark Ave.; two stories; brick; cost \$5500.

Va., Roanoke.—J. C. Wallace will erect residence on 13th St.; brick; cost \$3500.

### GOVERNMENT AND STATE

Fla., Pensacola.—Postoffice and Courthouse. Treasury Department, O. Wenderoth, supervising architect, Washington, D. C., will receive bids until September 4 to erect annex and remodel courthouse and postoffice, including plumbing, gas piping, heating apparatus, electric conduits and wiring; interior lighting fixtures and approaches; annex three stories, basement and attic; fireproof construction; stone facing; slate roof; 3400 square feet ground area; plans and specifications at office of supervising architect and custodian of site at Pensacola.

### HOTELS

Ala., Loxley.—William Beiser will erect hotel.

Ark., Little Rock.—Lewis Rhoton and John S. Braddock are reported as contemplating erection of hotel at Markham St. and Broadway; 10 stories; cost about \$250,000.

Ala., Tuscaloosa.—Kaul Lumber Co., main offices, Birmingham, Ala., will erect 25-room brick hotel. (See "Dwellings.")

Ga., Columbus.—Columbus Georgia Hotel Co. is having tentative plans prepared by Ludlow & Peabody, 12 W. 31st St., New York, for proposed hotel. (Previously noted.)

Ky., Louisville.—I. P. Barnard is having plans prepared by Joseph & Joseph, Louisville, for improvements to building at 214 W. Chestnut St. for Stag Hotel; will erect addition in rear and remodel; 30 rooms; cost \$15,000.

La., New Iberia.—Felix Patout will erect hotel on Main St.; 50 rooms; cost \$50,000.

N. C., Cleveland.—John A. Darwin will erect hotel at Cleveland Springs; plans are being prepared by Hook & Rogers, Charlotte, N. C.

Tenn., Nashville.—Richard C. Plater will erect hotel and store building. (See "Stores.")

Tex., San Benito.—John T. Boyles of Houston, Tex., is reported as promoting erection of hotel; four stories; brick; cost \$50,000.

Tex., Sanderson.—E. McGinley will erect 40-room hotel.

Tex., Natalia (not a postoffice).—Medina Irrigation Co., San Antonio, Tex., will open bids in about two weeks to erect hotel; 122x74 feet; ordinary construction; two stories; frame and stucco; metal lath and plastered walls; Spanish tile roof; steam heat; electric lighting; cost \$30,000; plans by Atlee B. Ayres, 626 Bedell Bldg., San Antonio. For further information address Thomas Palfrey, care of Medina Irrigation Co., San Antonio. (Recently noted.)

W. Va., Parkersburg.—James B. Cook will erect hotel on Julian St.; 101x23 feet; three stories; brick.

### MISCELLANEOUS

Ala., Bessemer.—Hospital.—Executive committee of hospital board, Mrs. E. H. Lopez,

chairman, has plans by W. E. Beans, Birmingham, Ala., and T. J. Skinner for hospital building on Third Ave. between 17th and 18th Sts.; three stories; brick; electric lights; elevators; telephones; speaking-tubes; hot-water heat; accommodations for 60 to 75 patients; cost \$20,000. (Recently noted.)

Ala., Birmingham.—Hospital.—Dr. G. C. Gwin and associates have plans by Ben Price, Birmingham, for 100-room addition and remodeling building on Tuscaloosa Ave. for hospital; will erect two additional wings; two stories each; mill construction; brick; low-pressure (direct) steam heat; electric wiring; electric elevator; pitch and gravel roof; cost \$25,000; construction by force account. (Recently noted.)

Ala., Birmingham.—Hospital.—Company has been organized with \$50,000 capital stock by J. H. Williams, president; Dr. W. B. Thomas, vice-president; George Beach, secretary and treasurer; will erect Sutton Sanitarium.

Ky., Louisville.—Home.—Board of Managers of Parr's Rest, 3d and Kentucky Sts., will erect building to cost about \$50,000; accommodations for 50 to 60 people.

Ky., Winchester.—Hospital.—Winchester Hospital Auxiliary Building Association will be incorporated with \$5000 capital stock or more by D. B. Hampton, W. H. Garner, Joe L. Brown and others to erect hospital.

Md., Baltimore.—Immigrant Home.—Frank & Kavanagh, 328 N. Charles St., are preparing plans for Catholic immigrant home at Locust Point; four stories; restrooms, reception-rooms and chapel on first floor; other floors will contain bedrooms, bathrooms, libraries and dining-rooms; cost \$75,000.

Md., Belair.—Clubhouse.—Belair Country Club will expend \$5000 for improvements to clubhouse.

Mo., Kansas City.—Dancing Academy.—D. F. Griffin will erect dancing academy at 1409 Troost St.; cost \$8000.

Mo., St. Louis.—Mission.—St. Louis Rescue Mission will erect mission rescue home on Morgan St. between 8th and 9th Sts.; cost \$75,000.

Mo., St. Louis.—Hospital.—St. Louis Maternity Hospital Association will expend \$3000 for improvements to hospital and nurses' home.

Okla., Tulsa.—Market house.—J. H. Simmons will erect market-house on Detroit Ave. between First and Second Aves.

Tenn., Nashville.—Parish house.—Christ Church will erect parish-house on Ninth Ave.; three stories; cost \$20,000. Address The Pastor, Christ Church.

Tex., Galveston.—Hospital.—John Sealy Hospital Board will erect hospital at 8th St. and Boulevard; reinforced concrete; tar and shell roof; cost \$15,000.

Tex., Ingleside.—Clubhouse.—Bickenbach Land & Development Co., El Paso, Tex., will erect El Paso Clubhouse; cost \$50,000. (See "Land Developments" at Tex., Pecos-dito.)

Va., Newport News.—Hospital.—Chamber of Commerce, Ray E. Bombo, secretary Young Men's Christian Association, and others are interested in erection of hospital; cost about \$30,000.

Va., Richmond.—Hospital.—Drs. L. C. Boshier and Charles R. Robins have plans by C. M. Robinson, Richmond, for hospital on Stuart Circle, and will receive bids until August 7; contractors estimating are W. A. Chesterman, A. C. Houston & Son, Wise Granite Co. and E. C. Woodward, all of Richmond; Metzger & Wells, Philadelphia, Pa.; George Leigh & Bros., Loudon, Va., and F. T. Nesbit & Co., Woodward Bldg., Washington, D. C.; six stories; reinforced concrete; Virginia granite base; concrete stone trimmings; copper cornice; roof garden. (Recently noted.)

Va., Norfolk.—Studio.—Homer Moore states contract for studio and apartment-house was not awarded as recently reported. (See "Apartments.")

### RAILWAY STATIONS, SHEDS, ETC.

Ala., Tuscaloosa.—Tuscaloosa Mineral Railroad, E. D. Sloan, chief engineer, Nashville, Tenn., will erect passenger station; 168x40 feet; umbrella shed 300 feet long. (Previously noted.)

Ga., Macon.—Macon, Dublin & Savannah Railroad, J. T. Wright, general manager, will erect freight terminals; brick and concrete.

Ky., Hazard.—Louisville & Nashville Railroad, W. H. Courtenay, chief engineer, Louisville, Ky., will erect railway station.

Md., Baltimore.—United Railways & Electric Co., Continental Bldg., is having plans prepared by Baldwin & Pennington, Profes-

sional Bldg., Baltimore, for car barns on Harford Rd. adjoining Weber's Park; concrete, brick and stone; slag roof; fireproof construction; cost about \$150,000. (Previously noted.)

N. C., Chapel Hill.—Southern Railway, B. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will, it is reported, erect passenger station.

N. C., University.—Southern Railway, B. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will erect passenger station; cost \$4500.

S. C., Williamston.—Greenville, Spartanburg & Anderson Railway Co., W. S. Lee, vice-president, Charlotte, N. C., will construct freight depot and yards; also reported to erect passenger pavilion.

Tenn., Memphis.—Illinois Central Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., and Yazoo & Mississippi Valley Railroad, Charles N. Burch, general solicitor, Memphis, secured city's formal approval of plans to erect union station. Mr. Baldwin wires Manufacturers Record: "Building to be combination office building and passenger depot; approximately 200x130 feet; eight stories; brick and stone construction; D. H. Burnham & Co., Chicago, Ill., architects; plans probably be sufficiently advanced to call for bids within one month." Reported cost, \$2,000,000 to \$3,000,000. (Recently noted.)

Tex., Greenville.—St. Louis Southwestern Railroad, J. S. Berry, superintendent of buildings and bridges, 1236 Pierce Bldg., St. Louis, Mo., and Texas Midland Railway, E. H. R. Green, president and general manager, Terrell, Tex., will expend \$14,000 to erect union station; 31x42 feet and 22x32 foot addition; ordinary construction; semi-glazed tile roof; plans by Mr. Berry; bids opened July 15. (Recently noted.)

Tex., Wylie.—Gulf, Colorado & Santa Fe Railroad, F. Merritt, chief engineer, will erect frame depot; construction by company's forces. (Recently noted.)

Va., Harrisonburg.—Chesapeake Western Railway Co. will award contract to J. S. Heatwole Company, Harrisonburg, to erect station; cost about \$20,000. (Previously noted.)

Va., Petersburg.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., will erect addition to freight sheds; about 100 feet long.

### SCHOOLS

Ala., Hartsells.—City voted \$15,000 school building bonds. Address The Mayor. (Lately noted.)

Ky., Bowling Green.—Warren county, Emery H. White, superintendent of county schools, is considering \$100,000 bond issue for school improvements.

La., Evangeline.—City opened bids August 6 to erect school. Address The Mayor.

Md., Cumberland.—John E. Edwards, superintendent public schools Allegany county, will receive bids until August 9 to erect two-story frame school; plans on file at Third National Bank; certified check, \$25.

Md., Frederick.—Women's College trustees invited architects to submit plans for \$100,000 college building on site of 45 acres. (Previously noted.)

Miss., Brookhaven.—Whitworth College will open bids August 15 to erect Mary J. Lampton auditorium; 50x95 feet; brick; tile roof; cost \$15,000; plans by Ben Price, 518 Empire Bldg., Birmingham, Ala.

N. C., Rockwell.—Town will erect school; brick; cost \$3000. Address Town Clerk.

N. C., Wilson.—Recent election declared invalid and city will vote again on \$30,000 bond issue for graded school improvements. Address The Mayor. (Noted in June.)

N. C., Winston-Salem.—City has site at north end of Oak St. and will erect colored school. Address The Mayor. (City lately noted as voting \$60,000 of bonds for schools.)

Okla., Tonkawa.—State Board of Public Affairs, Oklahoma City, Okla., will receive bids until August 7 for materials and repairs to building at University Preparatory School; plans and specifications at office of Layton & Smith, architects, Oklahoma City, Okla.; office of board as above, and from Lynn Glover, president of school at Tonkawa.

Okla., Westville.—City sold \$10,000 of school bonds for purchasing additional land and erecting addition to school. Address The Mayor.

S. C., Abbeville.—Rock Spring School District No. 45 voted tax for school improvements. Address District School Trustees.

S. C., Columbia.—City has plans to erect school on Logan school property. Address The Mayor.

Tex., Austin.—Board of School Trustees, H. M. Metz, president, will open bids August 9 to remodel and repair Bickler School; bids addressed to president, with certified check for \$500; plans on file at office of A. O. Watson, architect, and at office of A. N. McCallum, Superintendent of Schools.

Tex., Edgewood.—School trustees will let contract August 22 to erect 10-room school building.

Tex., Howland.—School trustees will let contract August 8 to erect eight-room school building. (Bond issue previously noted.)

Tex., Houston.—City opened bids to erect Sixth Ward school; Street & Born, Houston, are lowest bidders at \$47,500 for general contract; Lewis & Kitchen, Kansas City, Mo., at \$4400 for plumbing and \$3357 for heating, and Barden Electrical & Machinery Co. at \$1150 for electrical work; plans by C. H. Page & Bro., Union National Bank Bldg., Houston. (Recently noted.)

Tex., Houston Heights.—Houston Heights School Board opened bids for construction of addition and general improvements to high school; following were lowest bidders: J. W. Hine at \$3811 for general improvements and J. B. Collins at \$2355 for heating and \$1495 for plumbing. (Lately noted.)

Tex., Temple.—Wedemeyer Boys' Academy, Roy R. Campbell, chairman of building committee, has plans by J. H. Davis of Temple for school building; 50x84 feet; ordinary construction; asbestos cloth roof; cost \$10,000. (Recently noted.)

Tex., Winona.—Bids received until August 6 by Board of Education, J. P. Byron, secretary, to erect school; plans may be had from architect, Fred Gordon Shaw, 407 Dan Waggoner Bldg., Fort Worth, Tex.; certified check for \$200 must accompany each bid; bids also received on same date for furniture and heating apparatus.

Va., Boydton.—Boydton District No. 1 School Board, C. J. Faulkner, clerk, will receive bids until August 10 (extended date) to erect high school according to plans by G. R. Ragan, Salem, Va.; certified check for \$500; plans and specifications at office of Mr. Faulkner, at Boydton, or may be had on deposit \$15. (Previously noted.)

Va., Critz.—Board of trustees Mayo School District, Patrick county, will open bids August 10 to erect four-room high school; plans and specifications at office of W. King Via, Critz; separate bids will be received for brick and frame; usual rights reserved; G. D. Hubbard, clerk, Stuart, Va.

Va., Norfolk.—School Board rejected all bids for erection of annex to Atlantic City School No. 2 and will have plans modified by B. F. Mitchell, Seaboard Bank Bldg., Norfolk, for building, including heating apparatus, etc., to come within \$25,000 appropriation.

Va., Richmond.—School Board has plans by Carneal & Johnston, Richmond, for Bellevue school at 23d and Grace Sts., and will receive competitive bids for construction; has \$110,000 appropriation. (Recently noted.)

Va., Red Oak.—Heard & Cardwell, architects, Lynchburg, Va., will receive bids until August 10 to erect two-room and auditorium school for School Board of Rustburg district; certified check for \$100, payable to E. G. Peerman, chairman of board; plans at office of architects, and must be returned with bid.

### STORES

Ala., Huntsville.—Humes Laughlin has plans by E. L. Love for commercial building; three stories and basement; cost \$11,000; will be occupied by Holmes Grocery Co.

Ala., Holt.—Central Iron & Coal Co. will expend \$10,000 to erect commissary building; 5x125 feet; one story and basement; ordinary construction; heating and lighting from present heating and lighting plant; electric freight elevator; five-ply composition roof; plans by E. J. Ostling & Son, Tuscaloosa and Montgomery, Ala.; date of opening bids not determined. (Recently noted as Ala., Tuscaloosa.)

Ala., Loxley.—Wm. Davidson of Flomaton, Ala., will erect store.

Fla., Jacksonville.—Robert Peeler will erect two two-story buildings at 3d and Pearce Sts.

Fla., Miami.—Mayor J. W. Watson has site on 12th St. and will erect store; three stories; concrete; 50x100 feet.

Fla., Miami.—W. S. Witham, Atlanta, Ga., has plans by H. H. Mundy, Miami, for store building; 25x90 feet; mill construction; passenger (2000 pounds capacity) elevator; tin roof; cost \$22,000.

Ga., Atlanta.—Atlanta Joint Terminals is having plans prepared by Jack Head, Atlanta, to erect three-story-and-basement building on Louisville & Nashville Railroad

at foot of Alabama St.; 420x100 feet; concrete construction; to contain 16 stores, each equipped with elevators, steam heat, etc.; to be occupied by commission merchants; plans complete in two weeks; will cut new street in rear and construct incline at eastern extremity; total cost about \$250,000.

Ga., Athens.—W. S. Holman is having plans prepared by C. M. Strahan, Athens, for store and office building; 62x100 feet; six stories; fireproof construction; plans not complete. (Recently noted.)

Ga., Hartwell.—A. G. & Julian McCurry will let contract locally to erect store buildings recently noted.

Ga., Savannah.—J. Alston Waring, representing owners, will erect additional two stories to building at 241 Bull St.

Ga., Savannah.—Leopold Adler will expend \$12,000 for improvements to store; will install steel ceiling, 400 feet of shelf room and 500 feet of counters, etc.

La., Lake Charles.—Muller Company, Ltd., will erect store building; three stories; brick; 415 feet of show windows; freight and passenger elevators; automatic sprinkler system on all three floors, with 750 sprinkler heads fed from tank on top of building.

La., New Orleans.—Wellrick Realty Co. will erect store building at Lafayette, S. Peters and Commerce Sts. for F. Hollander & Co.; fireproof; two stories; 25,000 square feet of floor space on two floors; switch track arrangements, etc.

Md., Baltimore.—J. Wilson Leakin, 313 Fidelity Bldg., is having tentative plans prepared for erection of showroom at Cathedral and Preston Sts.; 32x100 feet; rough brick construction; two stories and basement; plate-glass front; hot-water heating system; cost of building, including site, \$25,000; building leased for 10 years by Goodyear Rubber & Tire Co.

Mo., Kansas City.—S. M. Ratner will erect brick store at 504-10 48th St.; cost \$2000.

Mo., Kansas City.—Kansas City Wholesale Grocery Co. purchased six-story building at 1206-18 W. 11th St., for \$100,000, and will expend \$50,000 to \$100,000 for improvements.

Mo., St. Louis.—Wilton Realty Co., subsidiary to Mortgage Guarantee Co., is having plans prepared by Ernst Preisler, St. Louis, for mercantile building at 16th St. and Lucas Ave.; steel and reinforced concrete; white-glazed terra-cotta surface; cost about \$200,000.

Mo., St. Louis.—Wm. Finken will erect two-story store at 325 Ivan St.; cost \$3500.

Mo., Springfield.—T. B. Holland, president Holland Banking Co., has plans by Reed & Heckenlively, 126 Public Square, Springfield, for store on St. Louis St.; three stories; brick.

N. C., Raleigh.—Frank Stronach will erect three stores on E. Davis St.; red brick; each 20x105 feet.

Okla., Westville.—P. J. Dore will erect store.

Okla., Westville.—H. Williams will erect business block and theater.

S. C., Greenville.—Rowley & Miller have plans to remodel Mayberry house on S. Main St. for store and office building. (See "Bank and Office.")

Tenn., Nashville.—Richard C. Plater purchased site 123x114 feet on Broadway and Vauxhall St. and will erect six stores with hotel above; cost about \$75,000.

Tex., Beaumont.—Bernard Deuster, president of Deuster Furniture Co., has site 110x150 feet on Calder Ave., and will, it is reported, erect store building from seven stories to 10 stories.

Tex., Dallas.—Clayton D. Browne of Browne-Lloyd Company will erect store building; 50x80 feet; four stories and basement; fireproof construction; heating and lighting not determined; two passenger elevators; composition roof; cost \$45,000; plans by Lang & Witchell.

Tex., Fort Worth.—Burton Dry Goods Co. will expend \$15,000 in improvements to store.

Tex., Fort Worth.—C. C. Peters will erect business building at 11th and Calhoun Sts.; brick; cost \$8000.

Tex., Houston.—Will L. White will erect store.

Tex., Houston.—E. T. Kinney will erect store building on Park Pl.; concrete.

Tex., Huntsville.—C. A. Randolph will erect brick store building on Main St.

Tex., Victoria.—J. J. Walder will open bids October 1 to erect store and office building; 94x87 feet; five stories and basement. (See "Bank and Office Buildings.")

Tex., Waco.—Breustedt estate and Mr.

Clements of New Braunfels, Tex., will erect store at Austin and 5th Sts.

Va., Norfolk.—Miller, Rhoades & Swartz have plans by B. F. Mitchell, Norfolk, to erect addition to store building; invited following contractors to bid: J. Henry Miller, 108 Dover St., Baltimore, Md.; Gregory & Williamson, R. H. Richardson & Son, Richardson Construction Co., Baker & Brinkley, East & Hobbs, and E. L. Myers, all of Norfolk. (Lately noted.)

Va., Richmond.—Charles and A. C. Straus will erect store at 1818 E. Main St.; two stories; brick.

### THEATERS

Miss., Yazoo City.—O. E. Jones, local manager Lomo Circuit, will erect brick theater.

Okla., Westville.—H. Williams will erect opera-house and business block.

### WAREHOUSES

Ala., Montgomery.—Teague Hardware Co. has plans by C. Frank Gallher, 325 Bell Bldg., Montgomery, for warehouse; 75x150 feet; three stories and basement; brick and concrete construction; electric freight elevator.

Ark., Okolona.—Cooper & Ross will erect warehouse on Main St.; brick and steel; 48x98 feet; fireproof; brick foundation.

Fla., Jacksonville.—Union Terminal Co., C. B. Gay, president, Harry B. Hoyt, vice-president, will erect terminal warehouse on Union St., portion of which will be used by C. B. Gay Company as syrup factory; five stories; reinforced concrete and steel; two subways with 3000 feet of railway siding around building; will install sprinkler system, elevators and interior phone system; fireproof construction; total investment about \$1,000,000; H. G. Perring, consulting engineer, wires Manufacturers Record: "Architect W. M. Marsh, Jacksonville, will have plans ready for bids about August 10; will allow contractors to submit alternate bids on concrete construction."

Fla., Tallahassee.—A. S. Wells will erect warehouse.

Ky., Carrollton.—Louisville Tobacco Warehouse Co., Brown Crawford, president, will erect addition to warehouse; 76x208 feet; concrete unit brick.

La., New Orleans.—New Orleans Terminal Co. has plans by B. R. Alford, Room 4 Terminal Station, New Orleans, for cotton warehouse; 610x60 feet; fireproof construction; electric lighting; cost \$30,000; no contract. (Recently noted.)

Md., Baltimore.—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, Baltimore and Charles Sts., purchased site at Burgundy Al. and Lee St. and will erect proposed warehouse.

Md., Salisbury.—Farmers & Planters' Co. organized with Glen Perdue, president, and acquired present company of that name; will erect warehouse on Mill St.; brick and iron.

Mo., Kansas City.—Union Depot Bridge & Terminal Co. will, it is reported, erect warehouse at Liberty Rd., N. 18th, Charlotte and Holmes Sts. for Sears, Roebuck & Co., Harry M. Rubel, local manager; three stories; reinforced concrete; 250,000 square feet floor space; cost about \$400,000.

Mo., St. Louis.—Busch-Sulzer Bros.-Diesel Engine Co. awarded contract to erect three-story brick pattern storage building; cost \$18,000. (See "Foundry and Machine Plants.")

Mo., St. Louis.—Arthur H. Forde of Winnipeg, Canada, will erect warehouse. (See "Miscellaneous Factories.")

S. C., Chesterfield.—Chesterfield Warehouse Co. incorporated with \$4000 capital stock by John T. Hurst, A. W. Hursey and H. W. Purser.

S. C., McCormick.—McCormick Warehouse Co. incorporated with \$10,000 capital stock; F. H. Tolbert, president; J. E. Britt, secretary-treasurer.

S. C., Orangeburg.—United States Warehouse Co. incorporated with \$5000 capital stock; W. B. Pace, president and treasurer; Houston Taylor, secretary.

Tenn., Knoxville.—H. O. Nelsen, Jr., will erect warehouse; concrete; 50x100 feet; cost \$11,000.

Tex., Cuero.—Guadalupe Valley Cotton Mills is having plans prepared for two warehouses; 60x70 feet and 100x100 feet; mill construction; cost \$5000 each; date of opening bids not decided. (Recently noted.)

Tex., Houston.—Mullane & Chaloupka (D. Mullane and W. A. Chaloupka) will establish Density Cotton Yard; will erect three detached storage warehouses; corrugated roof; fireproof; 63x147 feet each; aggregate



capacity, 10,000 bales; about 1500x200 feet will be paved with shell for classing and weighing cotton; trackage for 40 cars will be installed; plans prepared.

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

N. C., Charlotte.—R. Malever and Neal Finklestein awarded contract to Cashion & Hawkins, Charlotte, to erect apartment-house; 96½x48 feet; unit brick construction; gas heat; electric lighting; tile roof; cost \$12,000; plans by Hook & Rogers, Charlotte. (Previously noted.)

Va., Richmond.—H. S. Wallerstein awarded contract to W. A. Chesterman, Richmond, to erect apartment and store building. (See "Stores.")

Va., Richmond.—Grace-Monroe Apartment Corporation awarded contract to W. A. Chesterman, Richmond, to erect apartment-house at Grace and Monroe Sts.; 33x150 feet; brick and frame; probably slag roof; fireproof construction; cost \$35,000; cost of heating plant, \$2000; cost of lighting plant, \$1200; cost of elevators, \$2500; plans by Marcus Hallett, Mutual Bldg., Richmond; sub-contracts not awarded. (Mr. Hallett and Greenville Temple Snelling of New York recently noted as preparing plans.)

### ASSOCIATION AND FRATERNAL

Fla., Miami.—Miami (Fla.) Lodge, No. 948, Benevolent and Protective Order of Elks, awarded contract to erect lodge building recently noted. (See "Machinery Wanted.")

N. C., Winston-Salem.—Young Men's Christian Association awarded contract to Fogle Bros., Winston-Salem, to remodel building.

Tex., El Paso.—El Paso Lodge, No. 130, Ancient Free and Accepted Masons, awarded contract to Otto P. Kroeger and J. I. Hewett, El Paso, to erect Masonic temple; cost about \$15,000; plans by Trost & Trost, El Paso. (Recently noted.)

W. Va., Bluefield.—Masonic Trust Co. awarded contract to D. J. Phipps, Newport News, Va., to erect lodge building; five stories; ordinary construction; electric elevators; cost \$50,000; plans by Miller & Mahood, Roanoke.

### BANK AND OFFICE

Ala., Birmingham.—Herndon-Hettrick Engineering Co., 1021 Empire Bldg., Birmingham, has contract for structural work on Lyric building for Louis V. Clark. (See "Theaters.")

Ark., Warren.—Merchants and Planters' Trust and Savings Bank will expend \$30,000 to erect bank, store and office building; 70x90 feet; two stories; brick and stone; ordinary construction; cost of heating plant, \$3500; Johns-Manville roofing; plans by Witt-Selbert & Co., Texarkana, Ark.; contract awarded to Burnett & Nichols, Warren. (Recently noted.)

Fla., Palmetto.—Palmetto State Bank, organized by A. R. Welch and others, awarded contract to E. A. Houser, St. Petersburg, Fla., to erect bank building; fireproof.

Ga., Atlanta.—C. H. Nelson, trustee, 118 E. Hunter St., awarded contract to Industrial Engineering Co. to erect office building; two stories; reinforced concrete; cost \$25,000.

La., New Orleans.—American Sugar Refining Co. awarded contract at \$47,139 to James P. O'Leary, New Orleans, to erect office building at Peters and Iberville Sts.; two stories and basement; 80x99 feet; fireproof; plans by Dilloll, Owens & Goldstein, New Orleans. (Previously noted.)

Miss., Booneville.—J. C. Stanley awarded contract to F. B. Warley, Decatur, Ala., to erect additions to Bank of Booneville; 30x33 feet and 30x28 feet; ordinary construction; sheet-iron roof; cost \$3000. (Recently noted.)

Mo., St. Louis.—Busch-Sulzer Bros.-Diesel Engine Co. awarded contract to erect three-story brick office building; cost \$26,000. (See "Foundry and Machine Plants.")

N. C., Raleigh.—Citizens' National Bank awarded contract to Boyle-Robertson Construction Co., Washington, D. C., to erect office building; 11 stories; fireproof; stone, terra-cotta and brick construction; cost about \$150,000; plans by P. Thornton Marye, Atlanta. (Previously noted.)

Tex., San Antonio.—Wells, Fargo & Co. Express, 509 Bedell Bldg., awarded contract to Charles Boehlert, San Antonio, to erect depot office; 40x60 feet; fireproof construction; composition roof; cost \$7000; plans by Harvey L. Page Company, San Antonio. (Recently noted under "Warehouses.")

Va., Richmond.—Liggett & Myers Tobacco Co., main office, St. Louis, Mo., will erect warehouse at 7th and Canal Sts. for Allen & Ginter branch.

Tenn., Edith.—Bank of Edith, W. E. Crilfield, president, awarded contract to Hurt & Colley, Halls, Tenn., to erect bank building; one story; brick.

Tex., Galveston.—American National Insurance Co. awarded contract to Fred A. Jones Building Co., Houston, Tex., to erect office building at 21st and Market Sts.; 11 stories; fireproof construction; three elevators; cost about \$500,000. (Previously noted.)

### CHURCHES

Ga., Savannah.—Epworth Methodist Church awarded general contract to W. O. Hawley to erect church; Georgia gray granite; green slate roof; roof garden; steam heat; contract for limestone trimmings awarded to Mallonee Engineering Co. of Savannah. (Lately noted.)

Mo., Poplar Bluff.—First Baptist Church awarded contract at \$20,000 to Alfred W. Greer, Poplar Bluff, to erect church; plans by A. H. Lesmeister, Jonesboro, Ark. (Lately noted.)

Mo., St. Louis.—Epiphany parish awarded contract to Fred Hoff, St. Louis, to erect church and school at 6590 Sunley St.; two stories; brick; cost \$14,000.

Tenn., Jackson.—Plans for First Methodist Episcopal Church were prepared by A. F. N. Everett (not R. A. Heavener as recently stated), 600 The Grand, Atlanta, Ga.; Mr. Heavener is supervising architect; contract awarded to McKnight & Merz, Memphis, Tenn.

Va., Alexandria.—Second Presbyterian Church awarded contract to J. F. Rodgers, Alexandria, to erect Sunday-school at St. Asaph and Prince Sts.; 109x36 feet; cost \$20,000.

Va., Salem.—Methodist Episcopal Church awarded contract to Maurice C. Miller, Christiansburg, Va., to erect Sunday-school building; brick; two stories; 18 classrooms; plans by G. R. Ragan, Salem. (Recently noted.)

### CITY AND COUNTY

La., New Orleans.—Fire Station.—City awarded contract to Arthur Leibe, New Orleans, to repair No. 23 engine-house on Washington Ave.; cost about \$3000. (Recently noted.)

N. C., Wadesboro.—Jail, etc.—Anson County Commissioners awarded contract to erect jail and courthouse recently noted. (See "Courthouses.")

W. Va., Wheeling.—Hospital.—City awarded contract to James Stewart & Co., Pittsburgh, Pa., to erect city hospital; capacity for 153 beds; cost \$282,000. (Lately noted.)

### COURTHOUSES

Ga., Tifton.—Tift County Commissioners, John W. Baker, chairman, awarded contract to Jenkins & Co., Ocala, Fla., to erect courthouse; fireproof; brick bearing walls; hollow-tile partitions; cost \$60,000; plans by W. A. Edwards, 632 Candler Bldg., Atlanta, Ga. (Lately noted.)

N. C., Wadesboro.—Anson County Commissioners awarded contract to Falls City Construction Co., Louisville, Ky., at \$87,900 to erect courthouse and jail; plans by Wheeler & Stern, Charlotte, N. C. (Recently noted.)

### DWELLINGS

Ala., Birmingham.—Miss Mary Tomblin awarded contract to W. S. Cooper, Birmingham, to erect one-story frame dwelling on S. 31st St. between Thirteenth and Fourteenth Aves.; cost \$3000.

D. C., Washington.—Charles E. Baines awarded contract to W. C. Bludon, 15 Rhode Island Ave. N. W., to erect residence on south side of Rhode Island Ave.; 12 rooms; plans by A. B. Mullett & Co., Union Trust Bldg.

D. C., Washington.—H. Fessenden Meserve, The Washington, Baltimore, Md., awarded contract to erect residence at 1825 R St. N. W.; three stories; old English brick; mullioned grouped windows; cost \$85,000; plans by Clark Waggaman, 1124 Connecticut Ave. N. W.

Fla., Miami.—Fred J. Conrad has plans by and awarded contract to William Otter, Miami, to erect residence; 26x40 feet; mill construction; fireplaces; electric lighting; shingle roof; cost \$3500. (Recently noted.)

Fla., Palatka.—Howell A. Davis awarded

contract to erect two dwellings in West End.

Fla., Sarasota.—Mr. Worth awarded contract for dwelling and store. (See "Stores.")

Ga., Atlanta.—W. E. Treadwell, 117 Holderness St., awarded contract to J. A. Cochran to erect dwelling; one story; frame; cost \$3200.

Ga., Atlanta.—Mrs. K. Weisiger awarded contract to C. E. Miller, Atlanta, to erect one-story frame dwelling on W. 10th St.; cost \$3200.

Ga., Atlanta.—Mrs. W. Stalling awarded contract to Barnes & Young, Atlanta, to erect two-story frame dwelling at 1063 De Kalb Ave.; cost \$4500.

La., New Orleans.—R. L. Vigurie, 427 Pierce St., awarded contract to W. H. Landen, New Orleans, to erect residence; eight rooms; ordinary construction; grates; slate roof; cost \$4000. (Recently noted.)

Md., Cumberland.—C. C. and David Timmons awarded contract to Pierce Ashby, Cumberland, to erect double frame residence on North College St.

Mo., St. Louis.—John Trinkaus, 2624 Palm St., awarded contract to Charles N. Land, 405 Burlington Bldg., St. Louis, to erect residence; 27x38½ feet; mill construction; slate roof; cost \$6500; cost of heating plant, \$400; plans by William P. McMahon, 801 Wainwright Bldg., St. Louis. (Recently noted.)

N. C., Winston-Salem.—John Henry awarded contract to W. H. Goler, Winston-Salem, to erect residence at Goler Ave. and 6th St.; three stories; 25x36 feet; brick; metal roof; cost \$3000.

Tenn., Memphis.—W. J. Russell awarded contract to H. H. Higbee, Memphis, to erect residence at 1904 Harbert Ave.; cost \$3450.

Tenn., Memphis.—J. D. Fulmer awarded contract to A. J. Feucher, Memphis, to erect residence; 12 rooms; brick and frame; cost \$12,000.

Tenn., Memphis.—Mrs. B. J. Semmes awarded contract to F. A. Cory, Memphis, to erect Italian villa; nine rooms; stucco and brick construction; plans by McGee, Regan & Weller, Memphis.

Tex., San Antonio.—T. M. Paschal awarded contract to F. W. Gillette, 1523 Buena Vista St., San Antonio, to erect dwelling; eight rooms; two stories; ordinary construction; fireplaces; electric lighting; tin roof; cost \$3200; plans by H. T. Phelps, Gunter Bldg., San Antonio. (Recently noted.)

Tex., Wichita Falls.—J. A. Kemp and Frank Kell awarded contract to erect 20 four-room cottages to cost \$600 each; contract also awarded to erect 10 six-room brick dwellings.

Va., Roanoke.—Edward L. Stone, 210 Mountain Ave. S. W., awarded contract to R. A. Figgatt, Roanoke, to erect residence; 48x34 feet; fireproof; reinforced concrete and hollow tiling; cost \$7500; plans by H. H. Hugins, Roanoke. (Recently noted.)

### GOVERNMENT AND STATE

Mo., Jefferson City.—Temporary Capitol.—Joint committee of Senate and House of Representatives, C. M. Buford, chairman, awarded contract to erect temporary capitol; cost \$50,000. (Lately noted.)

### HOTELS

Ga., Savannah.—Chatham Land & Hotel Co., Harvey Granger, president, awarded contract to International Steel & Iron Construction Co., Evansville, Ind., to erect Hotel Georgia; will organize Georgia Hotel Co. with authorized capital stock of \$500,000 to own structure; four stories, including basement; 275 guest-rooms; private baths; individual showers; hot and cold water; pendant lighting system; intercommunicating telephones; Spanish Renaissance style; tiled roof; fireproof construction; exterior walls of hard burned tile; concrete foundation; steel skeleton framework; reinforced concrete floors with smooth cement finish; main lobby and corridors on first floor laid in mosaic tile or marble; beam ceilings in main lobby, ballroom, dining-room and parlor; double stairway leading to music-room from lobby with ornamental railings and marble steps; steam heat; refrigerating plant; cold-storage rooms, etc., in basement; lobby 50x75 feet; dining-room 80 feet square; portico 200 feet long to south of wing; one freight and two passenger elevators; cost about \$600,000; plans by Wallin & Young, Savannah. (Contract recently noted awarded, but different arrangements made.)

Mo., Kansas City.—Onondaga Realty Co., J. R. Mercer, president, 1014 Grand Ave., awarded contract to erect hotel; 44x84 feet; fireproof construction; cost \$135,000; plans

by Kurliss & Michaelis, Kansas City. (Previously noted.)

### MISCELLANEOUS

Ky., Covington.—Hospital, etc.—Sisters of the Poor of St. Francis awarded contract to Roche-Brunner Building Co., Cincinnati, O., to erect proposed hospital, convent and children's home; 250x500 feet; fireproof construction; hot-water heat; electric lighting; cost \$500,000; plans by Samuel Hannaford & Sons, Cincinnati, O.

Ky., Irvine.—Stable.—Clyde Gaines, Winchester, Ky., awarded contract to erect stable and theater building. (See "Theaters.")

La., Shreveport.—Swine Barn, etc.—State Fair Association awarded contract at \$7850 to W. H. Werner, Shreveport, to erect swine barns at State Fair; plans by C. W. King; awarded contract at \$3200 to Davis Bros. of Houston, Tex., to erect entrance. (Lately noted.)

Md., Baltimore.—Hospital.—Franklin Square Hospital, Fayette and Calhoun Sts., awarded contract to Cooper-Kubitz Construction Co., 614 American Bldg., Baltimore, to erect addition to hospital; three stories; architecture to conform with that of present structure; cost \$30,000.

Miss., Meridian.—Orphanage.—Masonic Widows and Orphans' Home, E. J. Martin, superintendent, awarded contract to C. H. Dabbs, Meridian, to erect orphanage; cost \$20,000.

W. Va., Wheeling.—Hospital.—Julian Hearne awarded contract to R. L. Rynum & Sons Company to erect Laura Ford Hearne Memorial Hospital at View Point; 50x140 feet; ordinary construction; cost \$20,000; plans by Edward Bates Franzheim, Wheeling. (Previously noted.)

### SCHOOLS

Ala., Birmingham.—Sisters of Perpetual Adoration awarded contract to erect convent; four stories; brick and concrete; stone finish; accommodations for 200 pupils; cost \$75,000; plans by A. O. Von Herbulst. (Recently noted.)

Fla., Lakeland.—City awarded contract to G. D. and H. D. Mendenhall to erect school and addition of eight classrooms to present structure; cost \$20,000. (Lately noted.)

Md., Baltimore.—St. Jerome's Catholic Church, Hamburg St. near Scott St., awarded contract to W. F. Welsh, 250 W. Preston St., Baltimore, to erect addition containing several classrooms to parochial school; one story; brick; 30x45 feet; cost \$4000; plans by John K. Stack, 12 E. Lexington St., Baltimore.

Md., Baltimore.—Maryland School for Blind, Overlea, Md., awarded contract to John E. Marshall & Co., 121 Mercer St., Baltimore, to erect addition to building at Fayette and Paca Sts.; three stories; 48x67 feet; cost \$10,000.

Md., Baltimore.—Board of Awards awarded contract at \$117,475 to B. F. Bennett Building Co., 123 S. Howard St., Baltimore, to erect No. 6 school on S. Ann St.; plans by F. E. & H. R. Davis, 220 St. Paul St., Baltimore. (Recently noted.)

Md., Howard Park (not a postoffice).—Baltimore County School Board, Towson, Md., awarded contract to John Cowan, 196 W. Madison St., Baltimore, to erect four-room addition to school; cost \$14,000; plans by Thomas L. Jones & Son, 410 W. Saratoga St., Baltimore, Md.

Md., Ridgely.—Caroline County Commissioners awarded contract to Lane & Lang, Ridgely, Md., to erect school; two and a half stories; brick; concrete foundation; cost \$25,000; plans by Thos. L. Jones & Son, 410 W. Saratoga St., Baltimore, Md. (Recently noted.)

Miss., Meridian.—City awarded contract at \$1825 each to Breckenbridge & McDonald to erect schools at East and West Ends.

Mo., St. Louis.—Epiphany parish awarded contract to erect church and school. (See "Churches.")

Tenn., Medon.—School Board awarded contract to E. A. Parish, Jackson, Tenn., to erect high school; cost \$4000.

Tex., Corpus Christi.—School Board awarded contract to Bolton & Stephenson, Beeville, Tex., to erect three ward schools; brick. (Lately noted.)

Tex., Dallas.—Dallas County Board of Education, M. F. Horton, superintendent, awarded contract to S. E. Lee, Dallas, to erect school at Vickery Stop in District No. 9; four rooms; ordinary construction; shingle roof; cost \$6000. (Recently noted.)

Va., Norfolk.—City awarded contract to J. A. Letchfield, Norfolk, to erect school; 60x80 feet; ordinary construction; hot-air

heat; slate roof; cost \$25,000; plans by Benjamin F. Mitchell, Seaboard Bank Bldg., Norfolk. (Recently noted.)

## STORES

Ala., Birmingham.—Steiner Bros. and R. A. Virgil, Montgomery, Ala., awarded contract to McDavid, Meyer, Goldman & Terry, Birmingham, to erect four stores at 20th St. and 4th Al.; cost \$20,000.

Ala., Birmingham.—Herndon-Hettrick Engineering Co., 1021 Empire Bldg., Birmingham, Ala., has contract for structural work on Lyric theater for Louis V. Clark. (See "Theaters.")

Ark., Helena.—Helena Wholesale Grocery Co. awarded contract to Green Bros., Helena, to erect addition to store; 62x102 feet; two stories; rubberoid roofing; cost \$7,000; plans by J. E. Fry, Helena. (Recently noted.)

Ark., Warren.—Merchants and Planters' Trust and Savings Bank awarded contract to erect store, bank and office building. (See "Bank and Office Building.")

Fla., Sarasota.—Mr. Worth awarded contract to H. B. Westbrook to erect store and dwelling on Main and Lemon Sts.; two stories; brick.

Ga., Atlanta.—Wester Music Co. awarded contract to J. W. Pittman, Atlanta, to alter building at 64 Peachtree St.; cost \$5,000.

Ga., Atlanta.—Byck Bros. will expend \$10,000 to remodel store at 27 Whitehall St.; ordinary construction; electric lighting; small elevator; tin roof; plans by W. T. Downing, Atlanta; contract recently noted let to Gude & Co., 711 Grant Bldg., Atlanta.

Ga., Hawkinsville.—Buff & Bennett awarded contract to J. H. B. Wilder, Macon, Ga., to rebuild and enlarge building on Jackson St.

La., Abbeville.—Joseph Russo will expend \$4500 to erect store building; 34x50 feet; ordinary construction; brick; metal roof; plans and construction by R. J. Montague, Abbeville. (Recently noted.)

La., New Orleans.—S. H. Kress & Co., 336 Broadway, New York, awarded contract to George J. Glover for foundation for store building on Canal St.; contract for superstructure will be awarded after foundation is finished; cost \$250,000; Emile Weil, New Orleans, consulting architect. (Lately noted.)

Md., Baltimore.—William Mattheiz, 1222 Hull St., awarded contract to F. Elchert, 1438 Reynolds St., Baltimore, to erect six buildings at 1306-16 E. Fort Ave.; two stories; brick; 13x14 feet; cost \$7,800; plans by Herbert C. Aiken, 619 N. Calhoun St., Baltimore.

Miss., Laurel.—Hicks Mercantile Co. awarded contract to Burke Construction Co., Hattiesburg, Miss., to erect store; cost \$20,000.

N. C., Raleigh.—Estate of F. P. Tucker awarded contract to J. W. Coffey, Raleigh, to erect business building; 26x30 feet; two stories and basement; composition roof; plans by H. P. S. Keller, Raleigh. (Recently noted.)

Tenn., Memphis.—D. Emmons & Co., 804 Tennessee Trust Bldg., Memphis, have contract for alterations and additions to building at 107-111 S. Main St., to be occupied by F. W. Woolworth Company's 5 and 10-cent store; improvements include new front, floors, shelving, decorating, etc.; cost \$14,000.

Tenn., Memphis.—M. S. Blinswanger, C. J. Hanse, Elias Gates and others awarded contract to R. F. Creson to erect eight stores at Cooper St. and Union Ave.; one story; white glazed enamel fronts; 175x30 feet; cost \$15,000.

Tex., Aransas Pass.—A. K. McKown, St. Louis, Mo., awarded contract to erect business building; brick; 50x30 feet.

Tex., Hearne.—S. Lipshitz awarded contract to John Robb, Hearne, to erect building to be occupied by R. R. Cole; brick construction.

Tex., Malakoff.—A. S. Tanner awarded contract to erect four brick stores.

Va., Richmond.—H. S. Wallerstein awarded contract to W. A. Chesterman, Richmond, to erect store and apartment building; fireproof construction; cost \$80,000; plans by Carneal & Johnston, Richmond. (Lately noted.)

Va., Richmond.—W. T. Smith will expend \$20,000 to erect store building; 32x112 feet; mill construction; electric lighting; tin roof; plans and construction by Delaney & Gann, 1216 Floyd Ave., Richmond; present expenditure, \$15,000. (Recently noted.)

## THEATERS

Ala., Birmingham.—Herndon-Hettrick Engineering Co., 1021 Empire Bldg., Birmingham, has contract for structural work on Lyric theater, store and office building for Louis V. Clark; five stories and basement; two electric elevators; cost, including site, \$359,000; plans by C. K. Howell, Richmond, Va.; general contract lately noted awarded to Marks Construction Co., Birmingham, Ala.

Ky., Irvine.—Clyde Gaines, Winchester, Ky., awarded contract to J. W. Rupard, Winchester, Ky., to erect building for moving-picture theater and stable.

Tex., Lockhart.—Swearingen & Baker will expend \$4000 to erect air dome and theater; 53x33 feet; stucco on outside; metal ceiling and walls; electric lighting; metal roof; plans and construction by L. H. Neeb of Lockhart. (Contract recently noted awarded by A. D. Baker Amusement Co.)

## WAREHOUSES

Ky., Lexington.—Burley Tobacco Society awarded contract to Combs Lumber Co., Lexington, to erect loose-leaf tobacco warehouse; concrete, pressed brick and steel; fireproof; 608x170 feet; cost \$100,000; material

purchased; plans by F. J. Manley of Allyn Engineering Co., Lexington. (Recently noted.)

Ky., Maysville.—Independent Loose Leaf Tobacco Warehouse Co. awarded contract to Harding & Simms to erect tobacco warehouse; 87x90 feet; ordinary construction; electric lighting; felt roofing; cost \$4000; plans also by Harding & Simms.

Mo., St. Louis.—William Waltke & Co., 2d and Grand Aves., awarded contract to erect warehouse, etc. (See "Miscellaneous Factories.")

N. C., Winston-Salem.—Winston-Salem Southbound Railway Co. awarded contract to H. H. George, Jr., Richmond, Va., to erect warehouse; 45x245 feet; two stories.

Okla., Tulsa.—Nichols Transfer Co. has plans by and awarded contract to J. R. Burnsides to erect storage warehouse; 50x140 feet; two stories; brick and cement; hand elevator; 5-ply roofing; cost \$8000. (Recently noted.)

Va., Norfolk.—J. B. and C. M. Barry, trustees, awarded contract to Richardson Construction Co. to erect storage warehouse at Union St. and Newton's La.; brick; cost \$5600.

# RAILROAD CONSTRUCTION

## RAILWAYS

Ark., Bald Knob.—Press dispatches state that 500 teams and 1000 men are at work on the St. Louis, Iron Mountain & Southern Railway (Missouri Pacific system), rebuilding and rebuilding the line between Bridge Junction and Bald Knob, Ark. It is stated that the company will spend about \$300,000 straightening the track and constructing new bridges. E. F. Mitchell is chief engineer, St. Louis, Mo.

Ala., Piedmont.—Geo. D. Harris of Piedmont, one of the parties interested in the plan to build a railroad from Piedmont to Pyrotton, writes that nothing definite has been determined as yet.

Ala., Pine Hill.—The proposed extension of the Alabama & Northwestern Railroad is from Lewiston to Sweetwater, Ala., via Pine Hill, five miles. J. J. King of Consul, Ala., is contractor. J. T. Cochran of Mobile is president, P. C. Byrne of Pine Hill is superintendent and Wm. Toxey chief engineer.

Ark., Little Rock.—Geo. D. Locke, president of the Kansas City & Memphis Railroad at Memphis, is quoted as saying that as soon as the line to Huntsville, Ark., is completed an extension to Little Rock will be commenced immediately.

Ark., Mt. Ida.—The Mt. Ida, Ouachita Valley & Hot Springs Railway, capital \$50,000, is chartered to build a line from the Gordon & Fort Smith Railroad north of Caddo Gap to Mt. Ida, eight miles; directors, G. H. Spear, L. L. Beavers, S. T. Smith, C. J. Watkins and others.

Ark., Sheridan.—Work is reported begun on the extension of the Pine Bluff, Sheridan & Southern Railroad, which, it is said, will be from Sheridan to Mannville, Ark., about 15 miles. E. S. McCarty is president.

D. C., Washington.—Columbian Construction Co. is reported to have contract for the Washington, Westminster & Gettysburg Railway from Brentwood, near Washington, to Sandy Spring, Md., about 18 miles. I. H. Saunders, 404 Southern Building, Washington, is secretary of the road.

D. C., Washington.—Press dispatches from Philadelphia state that the plan to build the Washington & Tidewater Railroad, chartered in 1910, has been revived. Plans for a \$2,000,000 corporation have been formed. The proposed route is from Washington, D. C., southeast to Point Lookout, Md., a distance of 72 miles; organizers, Henry Wynkoop Peirson of Philadelphia, W. Bernard Duke, vice-president of the National Bank of Baltimore; Francis T. Homer and George R. Willis, Baltimore; William Morgan Montgomery, Philadelphia. State's Attorney-General John C. Beall, law assistant of Mr. Montgomery, is also interested.

Fla., Dupont.—The Dupont Railway & Land Co. proposes to convert its 20-mile railroad from narrow to standard gauge and to connect it at Dupont with the Florida East Coast Railway. L. G. Williams is general manager.

Fla., Haines City.—The Haines City branch of the Atlantic Coast Line to Sebring is reported completed. E. B. Pleasants is chief engineer at Wilmington, N. C.

Fla., Tampa.—Atlantic Coast Line proposes to build a new bridge over the Hillsborough River at Tampa. E. B. Pleasants, Wilmington, N. C., is chief engineer.

Ga., Albany.—An official of the Georgia Southwestern & Gulf Railway is quoted saying that it is expected to start work in the fall on the contemplated extension from Albany to St. Andrews, Fla., about 150 miles. Contracts are let tentatively. There will be three steel bridges, one 400 feet long and two of 60 feet each. W. M. Legg, Albany, Ga., is president and general manager.

Ga., Atlanta.—Franchise has been granted at Forsyth, Ga., for the proposed Atlanta & Macon Interurban Electric Railway, and it is understood that construction will begin very soon, as this franchise is the last required to insure local rights for the road. Hollins N. Randolph of Atlanta and others are interested.

Ga., Gainesville.—Dr. Craig R. Arnold of Dahonega, Ga., and others are reported to have purchased the right of way of the Old Gainesville & Dahonega Railroad, and will soon build a steam railroad from Gainesville to New Bridge, and finally to Dahonega.

Ga., Macon.—J. T. Wright, vice-president and general manager of the Macon, Dublin & Savannah Railroad at Macon, confirms the report that the Georgia Railroad Commission has authorized the issue of \$10,000 of bonds by the company, the proceeds from the sale to be applied to completion of work on hand—namely, building bridge across the Ocmulgee River, three additional miles of track to connect same, terminal property and freight depot.

Ga., Pelham.—Reported that the Pelham & Havana Railroad will extend its line to Camilla, Ga., or some other point north and to Havana or some point on the Georgia Florida & Alabama, south, if the various towns interested will offer sufficient inducements. The present road will be remodeled and made a first-class road. A. C. Felton, Jr., is president at Macon, Ga.

Ga., Tifton.—The Americus, Tifton & Atlantic Railroad is reported to have completed its organization by electing officers thus: H. H. Tift, chairman of the board of directors and financial head; I. W. Myers of Tifton, president; J. S. Shingler of Ashburn, first vice-president; L. G. Council of Americus, second vice-president; John W. Greer of Tifton, secretary, and Fulwood & Skeen of Tifton, general council; directors, H. H. Tift and I. W. Myers of Tifton; L. G. Council and R. G. Ellis, Americus; C. J. Champlin, Doles; J. S. Shingler and J. L. Evans, Ashburn; A. W. Gaskins, Nashville, and M. C. Lee, Milltown. The proposed route, which is about 110 miles, is from Americus via Oakfield, Doles, Ashburn, Tifton, Nashville and Milltown, connection being made at Ashburn with the Georgia, Southern & Florida. It is contemplated to finally extend the road to Jacksonville.

Ky., Frankfort.—The Shelbyville & Frankfort Realty Co. is incorporated to acquire right of way for electric line from Shelbyville to Frankfort, Ky., 21 miles. Three large and four small bridges will be required. Connection will be made with the Louisville Interurban and Bluegrass Traction railways. Survey has been made; also profile map and estimate of cost, and company is now seeking capital to build the road. E. H. Taylor, Jr., is president; R. D. Armstrong, vice-president; Kennedy Taylor, treasurer; Eli Brown, secretary, and Roland Cox, chief engineer.

Ky., Maysville.—Construction is reported to be rapidly progressing on the Cincinnati,

Louisville, Lexington & Maysville Traction Railroad, and it is expected to have that section between Covington and Maysville in operation within a year.

La., Cottonport.—Reported that citizens of Cottonport and vicinity are organizing a stock company with \$50,000 capital for the purpose of building a branch railroad from Plaquemine through Cottonport to a connection with the Louisiana Railway & Navigation Co. near Mansura or Hesser. The following officers were elected: T. Lemoine, president; L. A. Ducote, first vice-president; P. J. Callegari, second vice-president; F. H. Hanley, secretary. Messrs. L. A. Ducote, E. Z. Gauthier, B. J. Lemoine and P. J. Callegari were appointed a committee to solicit stock. It is hoped to have the line completed by the fall.

Md., Brunswick.—The Frederick & Brunswick Railroad Co. will, it is reported, lay track in Brunswick at a cost of about \$10,000, and that work is about to begin. (See Manufacturers Record, May 23.)

Miss., Columbus.—On August 15, it is reported, an election is to be held in Columbus to vote on \$50,000 in aid of the Memphis, Columbus & Gulf Railroad. G. T. Heard of Brookville, Miss., is president.

Miss., Jackson.—The Jackson & Eastern Railroad Co. is reported to have filed articles of incorporation to build a line from Jackson to Meridian. It is rumored that the line may be a branch of the Illinois Central.

Miss., Norfolk.—Boyd & Bradshaw, Columbia, Miss., have been awarded a contract by the Natchez, Columbia & Mobile Railroad Co. to grade a 10-mile extension to Tilton, Miss., on the New Orleans Great Northern Railroad. G. S. Hoskins is engineer.

Mo., Calinsville.—H. O. Garst, City Engineer; Cecil Watkins, V. O. Hobbs and Lester Kackley are reported to have finished survey for the proposed railroad from Calinsville to Chillicothe, Mo., about 50 miles. It would connect two divisions of the Burlington Route.

Mo., Shelbyville.—The Shelby County Railroad is reported planning to build an extension from Shelbyville northward toward Novelle, Knox county, a distance of about 22 miles. Louis B. Houck is president at Shelbyville, Mo.

N. C., Maxton.—The Maxton, Alma & Southbound Railroad is reported to have run its first train into Maxton and to have nearly completed its extension of three miles from Bracey to Rowland, the grading being done and ties in place.

N. C., Raleigh.—C. K. Conrad, construction engineer, is reported to have been appointed to supervise construction on the Raleigh, Charlotte & Southern Railway. A large part of the work will be the linking up and improving of the Raleigh & Southport and other small lines. F. L. Nicholson is chief engineer at Norfolk, Va.

N. C., Waynesville.—Press dispatches state that the Pigeon River & Sunburst Railroad is completed and in operation up the river, 10 miles from Canton, connection being made there with the Southern. Grading is reported completed to Delwood, five miles, and tracklaying is under way. A lumber company, of which O. H. Viall is president, is said to be building the line.

Okla., Ardmore.—Construction is reported begun on the Ardmore, Lawton & Duncan Railway Co.'s extension to Sherman, 100 miles.

Okla., Cheyenne.—A. S. McKinney, president of the Cheyenne Chamber of Commerce, is quoted as saying that arrangements have been made to construct six miles of railroad from Cheyenne.

Okla., Oklahoma City.—Considerable grading is reported completed on the Kansas, Oklahoma & Texas Railway between Caney, Kans., and Nowata, Okla., and it is expected to have the road in operation by January 1. S. M. Porter of Caney is the principal promoter.

Okla., Oklahoma City.—John W. Shartel of Oklahoma City is quoted saying that active work for the construction of the proposed Oklahoma Northwestern Railway from Oklahoma City to Woodward, Okla., about 150 miles, will begin by October 1.

Okla., Sapulpa.—Lewis J. Lampke, president Oklahoma Public Service & Interurban Line, with headquarters in New York city, is quoted as saying that construction will soon be under way on an electric interurban line extending from Olathe, Kans., to Fort Scott, and thence to Tulsa, Sapulpa and either Guthrie or Oklahoma City.

Okla., Sapulpa.—Official denial is made of the press reports that the Santa Fe would build a line from Cushing via Sapulpa to Tulsa, Okla.



**S. C., Charleston.**—The Charleston Chamber of Commerce is reported interested in a plan to build an interurban electric railway between Charleston and Summerville.

**S. C., Florence.**—The South Carolina Western Railway Co., it is reported, will soon begin construction of an extension from Florence to Georgetown, S. C., about 60 miles. W. R. Bonsal, Hamlet, N. C., is president.

**S. C., Greenwood.**—W. S. Lee of Charlotte, N. C., vice-president of the Piedmont & Northern Lines, is quoted as saying that a mile of track will be built in Greenwood, following Maxwell Ave., Main St. and Hampton Ave. The line from Greenwood to Belton is expected to be operated within a month.

**S. C., Saluda.**—The Augusta Northern Railroad, it is reported, contemplates building an extension from Saluda to Greenwood, S. C., about 30 miles. L. A. Boyd, Saluda, S. C., is general manager.

**S. C., Summerville.**—Promoters of the Charleston-Summerville Development Co. are reported saying that application will be made to charter the proposed electric railway to Charleston on August 17. J. L. David of Summerville, S. C., is president.

**Tenn., Kinston.**—A letter to the Manufacturers Record says that nothing has yet been done to charter the Athens & Tennessee Railway Co. for a line from Athens to Harriman, about 26 miles. This refers to a recent press report.

**Tenn., Livingston.**—Notice is given that at noon on August 13 H. M. Doak, special commissioner, will offer for sale all the property of the Overton County Railroad Co.

**Tenn., Memphis.**—The Rock Island Railroad Co. proposes, it is reported, to begin construction soon on its proposed bridge at Memphis. J. B. Berry is chief engineer at Chicago.

**Tex., Brownwood.**—F. G. Pettibone, vice-president Gulf, Colorado & Santa Fe Railway, says that details are still incomplete for the proposed terminals near Brownwood.

**Tex., El Paso.**—The Mexico Northwestern Railroad is reported contemplating building a line from El Paso to Quanah, Tex. H. B. Bryant is chief engineer at Ciudad Juarez, Chihuahua, Mexico.

**Tex., Beaumont.**—The Jefferson County Traction Co., capital \$600,000, is reported to have filed charter for the purpose of constructing and operating lines of electric, gas, gasoline or denatured alcohol, naphtha or motor railways in and between Beaumont and Port Arthur. Principal offices are to be located at Beaumont, and the directors are Marshall M. Phinney and Theodore T. Whitney, Jr., of Boston, and Edwin B. Parker, C. R. Wharton, David Daly, J. H. Tallchett and Raymond Neilson of Houston.

**Tex., Farwell.**—J. D. Hamlin of Farwell, Tex., and J. J. Fry of Michigan City, Ind., are reported contemplating construction of a railroad from Farwell to Midland or Big Springs, Tex., about 190 miles. Charter of the old Rock Island, Texico, Farwell & Southern Railway is acquired with 40 miles of grade.

**Tex., Fort Worth.**—Texas & Pacific Railway is reported constructing an auxiliary yard adjoining its main yard west of Jennings Ave. viaduct. It will have five tracks, which are yet to be laid. C. H. Chamberlin is chief engineer at Dallas, Tex.

**Tex., Quanah.**—According to a dispatch, the Quanah, Acme & Pacific Railroad Co. has decided to build an extension from Paducah, Tex., toward El Roswell, N. M., a distance of about 40 miles. Another report says that construction of an extension from Paducah to Roaring Springs, in Motley county, is to begin immediately. Sam Lazarus is president, St. Louis, Mo.

**Tex., Marshall.**—The Railroad Commission is reported to have approved \$25,000 of bonds for the Marshall & East Texas Railroad, the proceeds to be used in general improvements and betterments. R. J. Lockwood is chief engineer at Marshall.

**Tex., Paris.**—The Railroad Commission is reported to have granted permission to the Paris & Mount Pleasant Railroad to register \$300,000 in bonds for construction of the Bogota-Mount Pleasant extension, a distance of about 30 miles. Trains are expected to be in operation by November 15. H. P. Mobberly is chief engineer at Paris.

**Tex., San Antonio.**—Regarding the report that the Missouri, Kansas & Texas Railway is making surveys and plans for the construction of yard tracks and terminal facilities, and that plans for the belt line have been completed, an official letter says that nothing definite has been decided upon.

**Tex., San Benito.**—The San Benito & Rio Grande Valley Interurban Railway Co. will,

it is reported, apply to the Railroad Commission for authority to issue not more than \$10,000,000 of bonds for the purpose of constructing the proposed interurban railway and operating it. The entire line will be about 200 miles, including 65 miles now in operation. E. E. McLellan is chief engineer at San Benito.

**Tex., San Benito.**—The San Benito & Rio Grande Valley Interurban Railway Co. has called a stockholders' meeting for October 2 to act upon a proposed issue of \$10,000,000 of bonds to build and equip its projected extensions as recently reported. S. A. Robertson is president at San Benito, Tex.

**Va., Harrisonburg.**—An official statement says that the Baltimore & Ohio Railroad intends this year to relay 20 miles of track south of Harrisonburg on the Shenandoah division with 85-pound rails, not 90-pound, as was rumored. Stone ballast will be used.

**W. Va., Benis.**—The Greenbrier, Cheat & Elk Railroad will build an extension of 18 miles from the end of present track to River Siding on the Western Maryland Railway. Rough country. Contract will probably be let for six miles, which require heavy construction. Rest will presumably be done by company's forces. Practically all bridges will be arches filled over. Samuel Slaymaker is president, E. P. Shaffer manager, and A. A. Raphael, the latter at Willard, W. Va., locating engineer.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

**Asbestos Covering.**—Huggins Naval Stores Co., Wilmington, N. C., wants prices on asbestos pipe covering.

**Asphalt-block Machinery, etc.**—D. B. McKay, Mayor, Tampa, Fla., wants to correspond with manufacturers of presses and other machinery for making asphalt paving blocks; also wants information on location of asphalt in large quantities.

**Automobile.**—See "Fire Department Equipment."

**Barrels.**—See "Crates, etc."

**Barrels.**—H. H. Barreda, Box 273, Mayaguez, P. R., wants addresses of manufacturers of barrels; wants packing barrels for shipping bottles to long distance; may buy about 500 per week if prices are satisfactory.

**Beltings.**—See "Machinery, etc."

**Beltting.**—Southern Sand & Gravel Co., Fredericksburg, Va., wants specifications and prices from manufacturers on conveyor beltting; length of belt in one piece 365 feet, 20 inches wide, not less than six ply, and suitable for handling sand and gravel—quite wet—about consistency of wet or sloppy concrete; speed of belt 270 feet per minute, incline on which it is operated having grade of 3 3/4 feet in 100, or angle of 18 degrees. State time of delivery and price f. o. b. Massaponax, Va.

**Boiler and Engine.**—J. P. Green Milling Co., Mocksville, N. C., wants prices on 40 or 50-horse-power boiler and engine.

**Boiler and Engine.**—Huggins Naval Stores Co., Wilmington, N. C., wants prices on 50-horse-power boiler and engine.

**Boiler.**—A. P. Ford, Mayfield, Ky., wants prices on 8 or 10-horse-power upright boiler.

**Boilers.**—Sealed proposals received at office of treasurer Southern Branch, N. H. D. V. S. National Soldiers' Home, Va., and there opened at time fixed, for furnishing labor and material in accordance with instructions and specifications, copies of which, with blank proposals, can be had upon application to treasurer, as follows: For furnishing and erecting two 250-horse-power steam boilers, power-house (building No. 15), until 1.30 P. M. September 5; F. E. Skinner, treasurer.

**Bridge Construction.**—La Sallo County Commissioners, Cotulla, Tex., receive bids until August 12 to construct steel highway bridge over Frio River at Fowlerston, Tex.; 56-foot span; 18-foot roadway; reinforced concrete piers; timber trestle approaches; certified check \$1000; for plans and specifications address C. C. Thomas, county judge, or W. H. Sylvester, engineer, both at Cotulla, Tex.

**Bridge Construction.**—N. A. George, Little River County Judge, Ashdown, Ark., and A. L. Tribble, Sevier County Judge, De

W. Va., Clarksburg.—The Clarksburg Northern Railroad Co. is reported to have finished grade to Middlesboro, 14 miles, and will begin tracklaying about September 1. H. M. Fry is chief engineer at New Martinsville, W. Va.

**W. Va., Parkersburg.**—The Parkersburg, Marietta & Interurban Railway Co. proposes, it is reported, to extend its line from Beverly, W. Va., to Connellsville.

### STREET RAILWAYS

**Ala., Birmingham.**—Lewistown, a suburb of Greater Birmingham, is reported taking steps to secure an extension of the Birmingham Railway, Light & Power Co.'s line.

**Ala., Birmingham.**—The Birmingham Railway, Light & Power Co. is reported to have acquired the Birmingham-Edgewood Electric Co. and will operate it as part of its system.

**Md., Baltimore.**—The United Railways & Electric Co. proposes to extend its St. Paul St. line from Howard St. to Light St. William House is president of the company.

**Miss., Hattiesburg.**—The Hattiesburg Traction Co. is reported to have filed a mortgage for \$2,500,000 to cover an issue of bonds of the same amount, part of which, it is stated, will be used to make extensive improvements.

**Okl., Muskogee.**—Work is reported begun on the Elgin Avenue Line of the Muskogee Traction Co.

**Queen, Ark.** will award contract at 10 A. M. August 30 at courthouse door, Ashdown, for erection of bridge at Mills' Ferry, between Little River and Sevier counties; plans and specifications on file in said counties, and may be obtained from engineer, Frank M. Blaisdell, Southern Trust Bldg., Little Rock, Ark.; \$10 check to accompany application for plans and specifications; certified check for \$1000 to accompany each bid.

**Bridge Construction.**—Commissioners of Roads and Revenues of Clarke county, Athens, Ga., receive bids until noon August 21 to construct steel highway bridge 120-foot span and 16 feet wide, and two steel girder frame bridges, span 48 feet and 46 feet and width 16 feet; also miscellaneous beams for widening roadway of present bridges, steel angle railing for open wood bridges and steel angle railing for abutment approaches to sundry bridges; latter items will aggregate 50,000 pounds of fabricated steel members; specifications to be obtained from C. M. Strahan, County Engineer.

**Brick.**—Ocala Lumber & Supply Co., Ocala, Fla., wants prices on vitrified paving brick f. o. b. Ocala.

**Bridge Construction.**—Public Road Commissioners, G. Russell Brown, chairman, 39 Municipal Bldg., Chattanooga, Tenn., receive bids until 10 A. M. August 20 to construct two concrete bridges on Dry Valley Rd.; plans and specifications on file with W. L. Dodds, County Engineer.

**Building Materials.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on general building materials.

**Charcoal Ovens.**—Sacks & Cohen, Box 711, Houston, Tex., want addresses of manufacturers of charcoal ovens for burning charcoal.

**Coal.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on coal.

**Compress Machinery.**—V. R. Eriehart, Hartsville, S. C., wants to correspond with manufacturers of or dealers in equipment for compress with annual capacity 25,000 to 30,000 bales of cotton.

**Concrete Siphon.**—Office Sewerage and Water Board, Room 506 City Hall Annex, New Orleans, La. Proposals received by Sewerage and Water Board until 12 M. August 24 for construction of reinforced concrete siphon under New Basin Navigation Canal at Broad St., contract 45 D; plans and specifications and general information furnished on application to board; certified check \$1000; F. S. Shields, secretary; Geo. G. Earl, general superintendent.

**Crates, etc.**—W. G. Crewe, Thoroughfare, Va., wants crates, boxes and barrels.

**Distillation Plant.**—Nell Bros., Lebanon, N. Y., are interested in erection of dis-

tillation plant for producing wood alcohol, acetate of lime, etc., and want prices on machinery and equipment.

**Drainage.**—Commissioners of San Benito (Cameron County) Drainage District No. 3, San Benito, Tex., will open bids 12 noon September 3 for 41 drainage ditches, aggregating about 143 miles in length; requiring about 2,400,000 cubic yards earth excavation, with sundry bridges and culverts; no pumping plants.

**Drainage.**—Sealed bids received until 3 P. M. August 29 in Chamber of Commerce, Little Rock, Ark., for excavation of main canal of Fourche Drainage District, construction of levees along same and concrete culverts as follows: Contracts Nos. 5, 6, 7 and 8—Main canal, length 8 miles, base 86 feet, slopes 2 to 1, maximum depth 22 feet, contains 1,115,000 cubic yards; secondary canal, length 6 miles, base 30 feet, slopes 1 to 1, maximum depth 23 feet, contains 687,000 cubic yards; north levee, length 8 miles, crown 39 feet, maximum height 22 feet, contains 733,400 cubic yards; south levee, length 8 miles, crown 6 feet, maximum height 22 feet, contains 435,000 cubic yards; canals and levees are parallel, and material from canals is to be used in levees. Reinforced concrete culverts—1 box culvert, length 624 feet, 8x10 feet, contains 1750 cubic yards; 1 box culvert, length 500 feet, 3x6 feet, contains 500 cubic yards. Contract No. 9, dredge ditches—main canal, length 6 1/2 miles, top width 20 feet, contains 155,000 cubic yards; lateral ditches, total length 6 miles, top width 12 to 18 feet, contains 145,000 cubic yards. Contracts Nos. 5, 6, 7 and 8 located within 2 miles of Little Rock; Contract No. 9, from 5 to 12 miles from Little Rock. Each bid must be accompanied by bidder's bond or certified check for 5 per cent. amount of bid; bond for contract twice amount of contract. Plans may be seen and specifications and blank forms of proposal, which must be used, may be procured at office of engineers, Lund & Hill, 201 1/2 W. 2d St., Little Rock. Maps, plans and profiles may be obtained from engineers on payment of \$3; Fourche Drainage District, W. M. Kavanaugh, president; Warren E. Lenon, secretary.

**Dyestuffs.**—See "Machinery, etc."

**Electric Plant Construction.**—City of Cumby, Tex., G. M. Morton, Mayor, will open bids in the fall for construction of 40-horse-power gasoline-operated electric plant.

**Electrical Machinery, etc.**—Williamstown Electric Light Co., J. E. Shoop, manager, present address 237 N. 4th St., Danville, Ky., wants 55-horse-power oil engine, 40-kilowatt dynamo, D. C. A. C., four miles No. 10 insulated wire, fixtures, etc.

**Electrical Machinery.**—O. R. Whitney, 29 Cortlandt St., New York, wants first-class second-hand 125-kilowatt direct-connected engine and generator, 110 to 125 volts, complete with fittings, for prompt delivery.

**Electrical Supplies and Machinery.**—See "Machinery, etc."

**Elevator.**—Huggins Naval Stores Co., Wilmington, N. C., wants prices on elevators for moving chips.

**Elevator.**—J. W. Stewart, Newbern, N. C., wants electric elevator for three-story hotel.

**Elevator.**—Winfield & Elliott Packing Co., T. A. Winfield, president, Miami, Fla., wants prices on machinery for carrying box material to second floor.

**Engine.**—See "Boiler and Engine."

**Engine.**—Winfield & Elliott Packing Co., T. A. Winfield, president, Miami, Fla., wants prices on six to eight-horse-power engine or motor.

**Engine.**—See "Electrical Machinery."

**Engineering Instruments, etc.**—Tipton & Burchard, Box 194, Gonzales, Tex., want catalogues from instrument houses.

**Farm Implements.**—Dupont Railway & Land Co., L. G. Williams, general manager, Dupont, Fla., wants traction gang plows and other farm implements.

**Fire-department Equipment.**—City of Waco, Tex., will receive bids August 16 for combination auto-driven pumper and hose wagon; also fire chief's auto; specifications to accompany bids; Thos. A. Caulfield, Commissioner of Finance.

**Fire Department Equipment.**—Bids, plans, specifications, terms and prices received until 8 P. M. August 30 at Administration Bldg., Denison, Tex., for automobile fire engine, carrying not less than 1900 feet standard fire hose, 25 or 30-gallon chemical tank and necessary extension and roof ladders; J. D. Yocom, City Secretary.

**Flooring.**—Dobson & Free, Cullman, Ala., want about 12,000 square feet rubber tile flooring.

**Furniture.**—Miami Florida Lodge No.

948, Benevolent and Protective Order of Elks, Miami, Fla., will purchase furniture and fittings for lodge building.

**Gasoline Engines.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on gasoline engines; 4, 6, 8, 10 and 12 horse-power.

**Heating Plant.**—Bids received until noon August 19 for installation of heating plant in new Wheeling City Hospital; bids addressed to H. F. Behrens, chairman building committee, Neuraiglyne Co., Wheeling, W. Va.; certified check 2 per cent. of bid; plans and specifications on file with Charles W. Bates, architect, Board of Trade Bldg., and with P. O. Clark, superintendent City Hospital.

**Heating Plant, etc.**—Proposals received by Board of Awards, Baltimore, Md., for furnishing and erecting partitions and heating plant in hall of produce market, Market Pl.; bids in sealed envelopes and left with Richard Gwinn, City Register, at his office, in City Hall, on or before 11 A. M. August 14; bids accompanied by certified check for \$250; drawings and specifications at office of Inspector of Buildings, C. E. Stubbs.

**Ice Machinery.**—Rex Planing Mill Co., Meridian, Miss., will receive prices on ice machinery.

**Levee Construction.**—Commissioners Orleans Levee District, Jules C. Koenig, president, New Orleans, La., receive bids until 8 P. M. August 15 to construct Andry St. to lower line parish of Orleans; length, 3305 feet; contents, about 25,000 cubic yards of earth; deposit, \$150; certified check or cash; for plans, specifications, bidder's blanks and further information address board.

**Machinery, etc.**—Robbins & Daggett, Grubb Bldg., Salisbury, N. C., want prices (view to agency) on general machinery, electrical supplies and machinery, belting and dyestuffs.

**Metal-working Machinery.**—Birmingham Metal Products Co., Birmingham, Ala., wants presses.

**Mixing Machinery.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on mixers of pulverized materials.

**Oil Engine.**—See "Electrical Machinery, etc."

**Paving.**—City of Gordonsville, Va., receives bids until August 26 for macadamizing Main St.; plans, specifications and contracts may be had from S. Marcus, chairman street committee.

**Paving.**—Baltimore (Md.) Board of Awards receives bids at office of City Register, City Hall, until 11 A. M. August 14 to grade, curb and pave Front St. from Hillen to High St. and from Exeter to Forrest St., and High St. from Hillen to Front St.; granite block; 5300 square yards; concrete base; contract No. 36; certified check, \$500; specifications and proposal sheets may be obtained on application to office of Paving Commissioner, R. Keith Compton, chairman, City Hall; deposit of \$5 required for each specification covering each contract; plans and profiles on file with H. Kent McCay, chief engineer.

**Paving.**—D. L. Noble, City Secretary, Taylor, Tex., receives bids until 8:30 P. M. August 12 for pavement of about 15 blocks; details may be had from City Secretary; bids received upon following materials: Vitrified brick, sheet asphalt, bitulthic, concrete, creosoted wood block and asphaltic concrete; certified check \$2500, payable to C. M. Still, Mayor; specifications, etc., may be obtained from City Secretary by making deposit of \$1 for each copy desired.

**Paving.**—Committee on Streets, Charleston, S. C., receives bids until 7 P. M. August 29 for 10,000 square yards brick and asphalt block paving; for information apply to J. H. Dingle, City Engineer.

**Paving.**—Sealed proposals received by City Commission, Port Arthur, Tex., until 10 A. M. August 21, then publicly opened in office of commission, for paving Houston Ave. from 7th St. to Procter St., and Procter St. from Houston Ave. to Shreveport Ave. Approximate quantities as follows: 25,372 square yards paving on five-inch concrete base; 5800 cubic yards excavation, earth and shell; 2980 linear feet plain concrete gutter; 4660 linear feet combined concrete gutter and storm sewer; 1030 linear feet 3x10-inch white oak headers; 12,000 pounds cast iron, inlet grating; 1128 linear feet vitrified pipe 8 to 24 inches; 30 cubic yards extra concrete; specifications call for wearing surface of vitrified brick, Texas sheet asphalt, creosoted wood blocks, asphaltic concrete or natural rock asphalt; certified check for \$5000; complete plans and specifications on file in office of L. D. Heckman, City Clerk, where copies may be obtained on deposit of \$5.

**Paving Materials.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on street-paving materials.

**Paving.**—Board of Public Works, Pensacola, Fla., receives bids until noon August 27 to construct 30,000 square feet concrete crosswalks; specifications and blank forms of contract and bond may be had from L. Earl Thornton, City Engineer, Room 203 City Hall.

**Petroleum Products.**—Champion Manufacturing Co., Box 448, Greensboro, N. C., wants prices on petroleum products.

**Piping, etc.**—Proposals addressed to City Council of Augusta, Ga., received by water works committee until 4 P. M. August 14 for furnishing pipe and specials and laying on various streets; about 450 linear feet 10-inch, 9000 linear feet 8-inch and 10,500 linear feet 6-inch pipe; plans and specifications may be had by applying at this office; cash or certified check for \$200 must accompany each bid; Nisbet Wingfield, City Engineer and Commissioner Public Works.

**Pumps.**—Huggins Naval Stores Co., Wilmington, N. C., wants prices on water pump with four-inch suction and oil pump with two-inch suction.

**Reinforced Concrete Work.**—See "Drainage."

**Reservoir Construction.**—City Council, Augusta, Ga., receives bids until 4 P. M. August 14 to construct reservoir on water-works property in Sixth Ward; about 150,000 cubic yards excavation; certified check \$50; plans and specifications on file with Department.

**Road Construction.**—Lawrence County Commissioners, Courtland, Ala., receive bids until 2 P. M. August 12 for construction of about 10 miles water-bound macadam road; certified check for \$400; plans and specifications on file at office of M. S. Bingham, resident State Highway Engineer, Hillsboro, Ala.

**Road Construction.**—Cullman County Commissioners, Cullman, Ala., receive bids until August 31 for macadamizing two of principal public roads; work to begin within city limits; expenditure \$800; plans, specifications and profiles on file with State Highway Engineer, Montgomery, Ala.; R. I. Burke, Judge of Probate of Cullman.

**Road Machinery.**—Board of County Commissioners, Hutson B. Saunders, Jr., clerk, West Palm Beach, Fla., wants information and prices on equipment for use in widening nine-foot-wide hard-surfaced road to 16 feet; much of road being on fills, in places four feet high.

**Road Machinery.**—Tips & Burchard, Box 194, Gonzales, Tex., want catalogues from manufacturers of road machinery.

**Road Machinery.**—Atlantic District Road Board, Ashton Fletcher, chairman, Jenkins Bridge, Va., wants road machinery.

**Rubber Tile.**—See "Flooring."

**Safe, etc.**—Citizens' Bank, Plains, Ga., wants prices on safe, vault and other bank fixtures.

**Safe, etc.**—Trust Company of the South, G. Megahed to be addressed, Atlanta, Ga., wants prices on safe, vault and other bank fixtures.

FOR the benefit of business concerns, engineers, contractors, machinery manufacturers, dealers and others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

### We issue every Business Day in the Year THE DAILY BULLETIN

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ment of Public Works; Nisbet Wingfield, City Engineer and Commissioner of Public Works.

**Retaining Wall.**—Proposals for grading, draining and construction of concrete retaining walls for East Trade St. underpass received by Executive Board of Charlotte, N. C., until 3 P. M. August 17, then opened on August 19; plans may be seen and specifications obtained at office of Joseph Firth, City Engineer; A. H. Wearn, City Clerk.

**Road Construction.**—Vesper county will receive bids at Heidelberg, Miss., September 2 for construction of 40 miles roads; Richard C. Huston, 630 Exchange Bldg., Memphis, Tenn., engineer; Sam Abrey, Heidelberg, official in charge.

**Road Construction.**—Board of Revenue of Mobile county, Mobile, Ala., receives bids until noon August 25 to construct five miles of Halls Mill Rd.; work consists of clearing and grubbing, gravel and chert, grading, concrete bridges and culverts, pile bridge and drain pipe; for plans and specifications address C. L. Strange, County Engineer, Room 11 Bank of Mobile Bldg.; certified check \$500.

**Road Construction.**—Commissioners Third District, Chickasaw county, will receive bids until 12 M. August 22 at Okolona, Miss., for construction of 10 miles (more or less) graded and gravel roads; about 20,000 cubic yards earth excavation; about 16,000 cubic yards novaculite gravel selected by commissioners and supplied by contractors to be used; specifications, etc., obtainable from commissioners and supplied by contractors to J. S. Rowe, Chas. Evans and Alex. Crelghton, commissioners.

**Scales.**—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants 80-ton railroad track scale; about 42-foot platform.

**Sewers.**—See "Water-works and Sewers."

**Sewer Construction.**—C. W. O'Leary, City Clerk, Meridian, Miss., receives bids until 8 P. M. August 9 to construct sanitary sewer on Twentieth Ave. and 18th St.; work consists of 70 linear feet 8-inch vitrified sewer, two manholes and 28 6x7 "y" branches and 2-inch flush valve; plans and specifications on file with City Engineer; certified check \$50.

**Steam Shovels.**—See "Road Machinery."

**Steel Oil Tanks, etc.**—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10 A. M. August 27 for furnishing steel oil tanks, steel channels, ingot copper, electric wire, indicator cocks, low-service pumps, glass globes, dishes, tablespoons, morocco leather, cardboard, paper and library paste. Copies of this circular (No. 723) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from United States Engineer offices in Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile, Galveston, Seattle and Los Angeles; Commercial Club, Kansas City, Mo.; Cham-

ber of Commerce, Quincy, Ill.; Commercial Club, Tacoma, Wash., and Chamber of Commerce, Portland, Ore.

**Stone-gathering Machine.**—Carl N. Dehlinger, 213 S. Second Ave., Wausau, Wis., wants addresses of manufacturers of "stone-gathering machines."

**Street-sprinkling Equipment.**—City of Thomasville, N. C., C. F. Finch, chairman street committee, wants street-sprinkler equipment.

**Sugar and Syrup Machinery.**—J. H. Lord, Sarasota-Venice Company (operating in Florida), 1222 Marquette Bldg., Chicago, Ill., wants information and prices on equipment for manufacture of sugar and sugar syrup.

**Valves.**—Huggins Naval Stores Co., Wilmington, N. C., wants prices on valves of all sizes from six inches down.

**Water-purification Plant.**—Bids received at office of J. B. Winslett, City Secretary, Dallas, Tex., until 2 P. M. August 26 for constructing water-purification plant at Turtle Creek pumping station; plans and specifications obtainable from City Clerk or from Jas. H. Fuertes, 140 Nassau St., New York, on payment of \$20; certified check for \$10,000 to accompany bids; bids to be addressed to City Secretary, and marked "Bids on Water-purification Plant."

**Water-works.**—Bids received August 12 for furnishing following material: Alternate bids on gas and steam pumping plant with 3,000,000-gallon single-stage centrifugal pump and 85-horse-power engine; 12, 8 and 6-inch cast-iron pipe with specials in car lots; 4 and 6-inch steel pipe in carload lots; 12-inch wood pipe in carload lots; one 150-gallon-per-minute triplex pump; one 100-gallon-per-minute triplex pump, and one 10-horse-power gas engine; work at Henrietta, Tex.; specifications can be had from Fountain-Shaw Engineering Co., Southwestern Life Bldg., Dallas, Tex.

**Water-works and Sewers.**—Mayor of Athens, Ala., receives bids until 8 P. M. August 9 for laying 12,750 feet four-inch and 2850 feet six-inch cast-iron water main and 80 specials; also for constructing sanitary sewer as follows: 1350 feet 12-inch, 2500 feet 10-inch, 8825 feet 8-inch, 330 feet 6-inch, and 50 manholes, flush tanks and lampholes; certified check for \$200; Lifford Cole, City Clerk.

**Water-works Equipment.**—City of Milton, W. Va., E. B. Irwin, Mayor, wants prices on about 1000 feet 10-inch and 1000 feet 8-inch water main; 10,000 feet 6-inch, all cast iron, to stand pressure of 90 pounds; gas engine and pump engine about 25 horse-power; additional necessary equipment.

**Water-works Equipment.**—John D. Kelley, City Secretary, Galveston, Tex., receives bids until noon August 15 for furnishing surface condenser, together with air pump and necessary piping to constitute complete condenser system on present exhaust line and maintain therein vacuum of 28 inches when condensing 6000 pounds of steam per hour under conditions as set forth in specifications; specifications may be seen at office of W. D. Masterson, city superintendent of electricity; certified check \$125.

**Well Drilling.**—Bids invited for deepening one of old wells belonging to city within the city limits of Waco, Tex., now finished to depth of 180 feet and cased with 7½ casing; proposed well will be deepened to test for hot water, oil or gas in paying quantities to depth of not exceeding 340 feet in all, to be finished with four-inch casing and set with McAvoy strainers; bids opened August 16. Address Peyton Randle, W. S. Duke, Jr., or D. E. Hirschfeld, executive committee.

**Wire.**—War Department, office of Chief Signal Officer, Capt. R. J. Burt, Disbursing Officer, Washington, D. C. Sealed proposals received until 11:30 A. M. August 14 for furnishing 20,000 feet wire, counterpoise, in accordance with specifications 416-C.

**Woodworking Machinery.**—Charles Fuess & Son, Cuero, Tex., want 24-inch planer with matching heads, chain mortiser, band saw and single-spindle sticker; new or first-class second-hand.

#### A Cement Gun Contract.

Among the recent contracts in which the extensive use of the cement gun forms a part is the resurfacing of the face of a solid concrete dam, 194 feet long by 20 feet high, belonging to the Woonsocket Electric Machine & Power Co., across the Blackstone River at Woonsocket, R. I. This work is being done by the New England Cement Gun Co., 88 Pearl St., Boston, and Stone & Webster of Boston are the engineers for the construction work.



## INDUSTRIAL NEWS OF INTEREST

### Wants to Purchase Beech Timber.

G. G. Hoster, P. O. Box 610, Huntington, W. Va., writes that he desires to purchase a tract of land containing from 10,000 to 15,000 acres of beech timber, with rights to the oil, gas and timber. He states that cut-over property will be suitable if the beech timber is satisfactory.

### Operating in the South.

Mr. E. F. Hartfelder, who was formerly identified with the Hartfelder-Garbutt Company, Savannah, Ga., is now representing some of the leading manufacturers and dealers in equipment and supplies for mills, mines and railroads. Mr. Hartfelder has been in business for several years and has the confidence of the business community. His operations will be in the South, and he reports that business prospects are most encouraging.

### Victor J. Evans & Co.'s Activities.

The new \$150,000 Victor Bldg., opposite the United States Patent Office, Washington, D. C., in which the extensive offices of Victor J. Evans & Co., patent attorneys, are located, reflects in an apparent way the extensive activities of this company. The favorable location of the company's building gives facilities for prompt attention to its clients' applications for patents prosecuted before the Patent Office, and the large number of patents that are obtained by this company reflects the success that is met. The company is sending four books free to interested persons. These are "How to Obtain a Patent"; "What to Invent," with a list of inventions wanted; "One Million Dollars Offered for Inventions," and "List of Patent Buyers."

### Water-works System for Pavo, Ga.

A new water-works system has been contracted for by J. L. Thrash of the firm of Baughn & Thrash, Tifton, Ga., to replace the present system in use at Pavo, Ga. The new system consists of a half-million-gallon capacity steam pump; an air compressor with a capacity of 250 cubic feet of free air per minute against 100 pounds working pressure; a 100-horse-power feed-water heater, and a 100-horse-power boiler. A reservoir of 68,000 gallons capacity and a station building 33x41 feet will be constructed of white silica brick furnished by the Tift Silica Brick & Stone Co. of Tifton, Ga. Ground has been broken and the brick work has commenced. The system will be installed as rapidly as possible, and it is said that it will be one of the most complete in South Georgia.

### Big Manufacturing Plant for Sale.

The manufacturing plant of the Hensch & Dromgold Company, York, Pa., containing machinery, tools and equipment well adapted to manufacturing agricultural implements, sawmills, etc., is noted in our advertising columns to be sold on August 20, 1912. This is an actively-operating manufacturing concern, and all of the property, including buildings with over 71,000 square feet of floor space, a 250-horse-power steam engine, a 10-ton cupola; private switches, giving railroad connection with the Pennsylvania and Western Maryland railroads; the crude materials, and the partly-manufactured and completed products will be sold. The plant and goods may be examined and the inventory may be seen at the office of the company. Full particulars and terms of the sale may be obtained by addressing R. J. Lewis or E. K. Emig, receivers, York, Pa.

### American Infusion Steel Process.

An innovation in the methods by which low-grade steels may be case-hardened to a high degree for making tool steel, for case-hardening gears, cutters' steel, etc., is found in the process of the American Infusion Process Co., 60 Wall St., New York. The value of this method lies in the fact that the case-hardening is done after the tools, gears, wheels, etc., are made from soft steel, after all the machining operations have been completed. It is claimed that much cheaper material can be purchased in the first place, with less cost to turn, form and cut the soft steel, and that the operation of infusing is not attended with risks of spoiling the tool after it has been formed. The material used in this process is given the trade name of "Stelpro," and is what may be called a scientific hardening mixture. Gears and tools made from open-hearth steel and infused with "Stelpro" become thoroughly case-hardened and efficient gears and high-speed tools. Articles made from soft open-hearth steel treated by this process are said to show

remarkable results. The principal modification which this infusion process makes from the ordinary case-hardening method lies in the character of the hardening material and the ensuing effects and in the greater depth to which the carbonizing action is extended. After machining pieces made of soft steel they are treated by packing them with the "Stelpro" mixture, the composition of which is varied according to the effect to be produced, and the box is subjected to a predetermined temperature for periods of one to four hours, depending on the material and results to be obtained. Upon removal from the action of the heat the finished articles are dipped in water or oil and treated in the same manner as if they had been originally made from tool steel. It is claimed that not only carbon, but also the other desirable elements used in the production of modern alloy steel may be induced in the soft steel in this manner. This permits the process to be applied to a great number of purposes where high-grade case-hardening is necessary.

### Big Brick Contract for Unit Brick & Tile Co.

The Burley Tobacco Society has awarded the contract through the Combs Lumber Co., general contractors, of Lexington, Ky., for Unit Brick to be supplied by the Unit Brick & Tile Co. of Louisville and used in the construction of its Lexington warehouse. It is said that this warehouse will be one of the largest ever constructed in Kentucky, covering an area of one and one-half Lexington squares in length, with a width of one-third of its length, and three stories high. The use of this brick enables the Society to construct its building with the hollow wall peculiar to the "U" shape of this brick; also to avoid painting, owing to the natural gray color of the brick. Unit brick is described as being made of the best concrete composition; not a concrete block, but a dry, non-absorbing brick of such dimensions that its use saves a considerable amount in wall space.

### Wales Visible Adding Machines.

In addition to the great number of institutions using the Wales visible adding and listing machines, the following have recently installed them: The Lowry National Bank of Atlanta, Ga., has purchased 10 machines; the Atlanta National Bank, six machines; R. H. Macy & Co., department store, New York; the American National Bank, Austin, Tex.; and the United States Tire Co. of New York and Chicago have each made installations. The speed with which these machines may be operated is indicated by the records made by Harry Reynolds before the Atlanta Chapter, American Institute of Banking, April 19, 1912. These reported world's records for correctly listing bank checks included 250 checks in 2 minutes 51 seconds; 100 checks in 1 minute 12½ seconds; 150 checks in 1 minute 46½ seconds; 200 checks in 2 minutes 23½ seconds; 500 checks in 5 minutes 50 seconds. This work was done on a Wales visible adding and listing machine.

## TRADE LITERATURE.

### "Perennial Prime White" Road Oil.

A pamphlet issued by the Good Roads Improvement Co., Cincinnati, sole manufacturer of "Prime White" road oil, includes a number of illustrations showing roads and streets on which this oil has been used as a "dust layer." It is stated that the authorities at Newport, Ky., and about 40 other different cities have ordered this road oil, and many of them have sent in repeat orders. It is described as a plain, colorless, odorless, stainless and trackless road oil, which makes a perfect dust layer.

### Biehl Iron Works Products.

The recent installation of extensive modern equipment enables the Biehl Iron Works, 2d and Chestnut Sts., Reading, Pa., to manufacture its various lines of contractors' equipment to advantage. This company has been manufacturing contractors' products for over 60 years, constantly making improvements as required. Its Catalogue "E," recently issued, contains illustrations and descriptions of its coal and ore tubs, contractors' buckets, dump cars, skips, wheelbarrows, trucks, lead-melting furnaces, ladles, asphalt fire wagons, masons' salamander furnaces, derrick and hoisting engines, etc. This company also carries on steel-plate construction and makes iron and steel forgings and castings. The catalogue contains dimension tables and price-list for various equipments. It will be sent by the company on request to interested persons.

### "Little David" Pneumatic Drills.

A drill which embodies many unique features of construction has been designed and is made by the Ingersoll-Rand Company, 11 Broadway, New York, and is known as the "Little David" drill. It is described and illustrated in bulletin form No. 8007. It is stated that this tool, which is simple in construction, is adapted in its various sizes to all the ordinary work of the pneumatic drill, such as reaming, tapping, flue rolling, drilling and wood-boring. The pneumatic motor is of the angular, 4-cylinder, single-acting, reciprocating type. These machines are built reversible, but can be made non-reversing by simply inserting a small pin in the hole provided in the throttle handle. The bulletin contains sectional drawings of the cylinders and views of the drill engaged at work of various kinds.

### Agricultural Blasting.

Information of interest to farmers regarding the use of dynamite and blasting is contained in the August issue of the "Agricultural Blaster," published monthly by the E. I. du Pont de Nemours Powder Co., Wilmington, Del. An interesting view shows a pond 10x100 feet and 5 feet deep made by a farmer by the use of du Pont dynamite at a cost of \$55. It is stated that a contractor wanted \$300 to dig the pond without the use of explosives. The use of dynamite for blasting in subsoiling, stump blasting, ditching, etc., are referred to in the publication. This company is giving attention to the promotion of gun clubs for trap shooting, target practice, etc., which, it is stated, is meeting with success in various parts of the country. Information regarding the assistance it renders in the formation of these clubs may be obtained by writing the company.

### Covington Oil Engines.

The advent of newer and heavier machinery, driven at high speed, has called for increased power consumption to such an extent that manufacturers find that the cost of power is one of their most important problems. Covington oil engines, designed by the Covington Machine Co. of Covington, Va., with sales office at 88 Wall St., New York, are made with the object of reducing these power costs to a minimum. The company has issued a bulletin illustrating and describing its type "A" and type "B" oil engines. It is stated that these engines are suitable for service where power is required either for belt or generator transmission to shops and factories; for lighting and power for towns, stores, hotels or residences; for water-works and irrigation plants, etc. The advantages claimed for these engines, together with low costs of operation and power transmission, are included in the bulletin. It will be sent by the company to interested persons on request.

### Pressed Steel Shelving and Lockers.

The extensive use of clothes lockers in industrial plants, stores, athletic clubs and other places in which lockers and shelving are needed has created a demand for material which may be easily applied to such purposes. The Richard W. Jeffers Company, 500 N. 7th St., Camden, N. J., manufactures "knocked-down" shelving and lockers which are claimed to be economical and easily assembled. Folder "8," issued by the company, describes and illustrates the Jeffers pressed-steel shelving and lockers made to be used on the "unit" system. It is stated that these lockers may be assembled easily by one man with a screwdriver and a wrench; that they are sanitary and will last indefinitely. They are made in standard sizes which may be combined to fit various conditions of space and location. The "unit" system of construction prevails throughout, so that any required number of lockers can be placed in a row. This folder will be sent on request to the company.

### Wood-Preserving Machinery.

The value of wood preservation is becoming of such importance in the industrial world that the consumer of timber is beginning to realize that the increased cost and scarcity of lumber must be offset by preservation methods. The method of preserving timber by creosoting is described in bulletin P-35, issued by the Power & Mining Machinery Co., 115 Broadway, New York, with works at Cudahy, Wis., and branch offices in many cities, including Equitable Building, Atlanta, Ga.; Scarritt Bldg., Kansas City, Mo.; and the Chemical Bldg., St. Louis, Mo. Illustrations are given which show the equipment, creosoting cylinders, oil tanks, railroad tie cars, paving-block cars, vacuum pumps, etc., as required in a complete creosoting plant. In addition to

wood-preserving machinery, this company manufactures machinery for mining, silver-lead, copper and pyritic smelting works, stamp mills, cyanide mills, etc., and also designs and builds machinery for special work.

## FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### TYPICAL OF SOUTHERN PROGRESS

#### Million-Dollar Trust Company Chartered and Oversubscribed in Seven Days.

One week ago today a charter was granted by the Virginia Corporation Commission to the Richmond banking firm of John L. Williams & Sons for a new trust company, to be known as the Richmond Trust & Savings Co., with a capital stock of \$1,000,000, the principal office to be in Richmond, Va.

It was decided that the books of subscription to stock of the new company should be opened on Wednesday, August 7, at 9 A. M., or just a week after the granting of the charter. A press dispatch just received from Richmond announces that the subscriptions received for the stock of the new trust company, in advance of the opening of the books of subscription, exceeded \$1,400,000, and that there will have to be a reduced allotment of the stock among subscribers.

The rapidity with which the stock of this new financial institution which has just been organized in Richmond was subscribed is indicative of the growth and prosperity of that city, and is also expressive of the general prosperity which pervades that section. It is claimed that Richmond breaks the record in the matter of raising capital for a new million-dollar bank in the South by securing within a week after the granting of the new charter an oversubscription of 40 per cent. for this new million-dollar trust company.

The extraordinary increase in the business of Richmond is shown to some extent in the increase in bank clearings. For 1900 the bank clearings at Richmond amounted to \$175,653,845. For the 12 months ending June 30, 1912, the clearings of the Richmond banks amounted to \$413,726,315, while the deposits in banks in Richmond have increased from less than \$13,000,000 in 1900 to more than \$45,000,000 at the present time.

The new trust company will take over the trust company business of the Bank of Richmond. It is understood that Mr. John Skelton Williams, president of the Bank of Richmond and vice-president of the National Bank of Virginia, has agreed to accept the presidency of the Richmond Trust & Savings Co.

In 1898 the Richmond Trust & Safe Deposit Co. was chartered with a capital of \$300,000. Within one year this capital was increased to \$700,000 and a few months later to \$1,000,000. Through consolidation of the Richmond Trust & Safe Deposit Co. and the Metropolitan Bank of that city the Bank of Richmond was organized in 1904, and about two years ago the Bank of Richmond's commercial banking business was consolidated with the National Bank of Virginia. The Bank of Richmond retained its trust company business, and that corporation it is now proposed to merge legally with the newly-organized Richmond Trust & Savings Co., Inc., so that the latter, in addition to the rights and franchises which it possesses under its present charter, shall succeed to all the rights, privileges and franchises of the Bank of Richmond and its predecessors.

sor, the Richmond Trust & Safe Deposit Co., and shall take over the trust company business of the Bank of Richmond.

#### A \$3,000,000 Bank in Richmond.

The directors of the First National Bank of Richmond and the National Bank of Virginia of Richmond have voted in favor of the consolidation of these two banks under the name of the First National Bank of Richmond, Va., with a capital stock of \$2,000,000 and a surplus of \$1,000,000, making the book value of the stock \$150 a share. The plan of consolidation contemplates a distribution of cash to stockholders over and above the shares of stock issued of approximately \$540,000 to the stockholders of the National Bank of Virginia and \$700,000 to the stockholders of the First National Bank. This distribution of about \$1,240,000 will be made over a period of about six months, giving ample time in which to convert certain assets into cash. The First National Bank of Richmond is now erecting one of the finest office buildings in the country, and will shortly move into it. When the consolidation is effected the new bank will have deposits of between \$13,000,000 and \$14,000,000. It is anticipated that the new board will elect the following officers: W. M. Habliston, chairman of the board; John B. Purcell, president; John N. Miller, Jr., vice-president, and W. M. Addison, cashier.

#### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending August 5.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75	80
Allen Mfg. Co. (S. C.)	55	60
Anderson Cotton Mills (S. C.)	162	165
Anderson Cotton Mills (S. C.) Pfd.	48	50
Anderson Cotton Mills (S. C.)	100	105
Arkwright Cotton Mills (S. C.)	99	100
Belton Mills (S. C.)	100	110
Brandon Mills (S. C.)	90	95
Brogan Mills (S. C.)	60	65
Chiquola Mfg. Co. (S. C.)	100	105
Clifton Mfg. Co. (S. C.) Pfd.	97	100
Clinton Cotton Mills (S. C.)	120	125
Courtney Mfg. Co. (S. C.)	93	95
Dallas Mfg. Co. (S. C.)	90	95
D. E. Converse Co. (S. C.)	75	80
Drayton Mills (S. C.)	90	95
Eagle & Phoenix Mills (Ga.)	106	110
Easley Cotton Mills (S. C.)	162	165
Enoree Mfg. Co. (S. C.)	25	30
Enoree Mfg. Co. (S. C.) Pfd.	85	90
Gaffney Mfg. Co. (S. C.)	72	75
Gainesville Cotton Mills (Ga.)	72	80
Glenwood Cotton Mills (S. C.)	130	140
Grantville Mfg. Co. (S. C.)	135	145
Greenwood Cotton Mills (S. C.)	57	60
Grendel Mills (S. C.)	90	100
Hartsville Cotton Mill (S. C.)	100	105
Henrietta Mills (N. C.)	175	180
Inman Mills (S. C.)	100	105
King Mfg. Co. (S. C.)	80	85
Lancaster Cotton Mills (S. C.)	130	135
Lancaster Cotton Mills (S. C.) Pfd.	97	100
Langley Mfg. Co. (S. C.)	75	80
Laurens Mills (S. C.)	125	130
Limestone Mills (S. C.)	155	160
Lockhart Mills (S. C.)	135	140
Lockhart Mills (S. C.) Pfd.	90	95
Loray Cotton Mills (N. C.)	95	100
Marlboro Cotton Mills (S. C.)	75	80
Mills Mfg. Co. (S. C.)	90	100
Molokoh Mfg. Co. (S. C.)	90	95
Monaghan Mills (S. C.)	105	110
Monarch Cotton Mills (S. C.)	110	115
Newberry Cotton Mills (S. C.)	125	130
Ninety-Six Cotton Mills (S. C.)	130	135
Norris Cotton Mills (S. C.)	115	120
Orr Cotton Mills (S. C.)	90	95
Pacolet Mfg. Co. (S. C.)	72	75
Pacolet Mfg. Co. (S. C.) Pfd.	95	100
Parker Common.	20	25
Parker Pfd.	63	65
Pelzer Mfg. Co. (S. C.)	120	125
Poe Mfg. Co. (S. C.)	110	115
Saxon Mills (S. C.)	130	135
Spartan Mills (S. C.)	110	115
Trion Mfg. Co. (Ga.)	130	135
Tuscan Mills (S. C.)	300	350
Union-Buffalo (S. C.) 1st Pfd.	60	65
Union-Buffalo (S. C.) 2d Pfd.	15	20
Victor Mfg. Co. (S. C.)	110	115
Warren Mfg. Co. (S. C.)	80	85
Warren Mfg. Co. (S. C.) Pfd.	100	105
Washington Mills (Va.)	23	25
Washington Mills (Va.) Pfd.	106	110
Whitney Mfg. Co. (S. C.)	110	115
Wiscasset Mills (N. C.)	125	130
Woodruff Cotton Mills (S. C.)	95	100
Woodside Cotton Mills (S. C.)	100	105
Watts Mills (S. C.)	70	75
Williamston Mills (S. C.)	120	125

#### State Banks of Maryland.

A tabular statement of reports of the State banks and trust companies of Maryland has just been issued by Bank Commissioner J. Duke Downes covering their condition at the close of business June 14. It shows total resources of \$107,795,547, which covers 106 institutions and 510

branches. There are also 20 savings banks which on June 29 had an aggregate of \$101,930,098, making a grand total of \$209,725,645 in the various financial institutions chartered by Maryland. This reveals an increase of much more than \$4,000,000 for the banks and trust companies, and of \$1,000,000 for the savings banks since December last.

#### FINANCIAL CORPORATIONS.

Ala., Brewton.—A new bank is reported being organized by J. B. Stirling, president of the First National Bank of Jackson; M. A. Lewis, W. H. Tharp, J. O. Walton, F. M. Campbell and J. D. Rogers of Newton.

Ala., Mobile.—The Farmers' Loan & Banking Co., capital \$50,000, is reported being organized by S. O. Vickers of the Grand Bay Lumber Co.

Ark., Rogers.—The Bank of Rogers is reported incorporated with \$150,000 capital by W. R. Felker, J. E. Felker and W. B. Felker.

Fla., Daytona Beach.—Official: The East Coast State Bank is being organized with \$25,000 capital. Incorporators and directors: Cary D. Landis, president, De Land, Fla.; H. F. Stewart, vice-president, Daytona Beach; Bert Fisher, cashier, De Land; Michael Sholtz of Daytona, Fla., and J. K. Atkinson of Brooklyn, N. Y. Business is expected to begin about November 1.

Fla., Cedar Key.—Reported chartered: Cedar Key State Bank; capital \$15,000; W. R. Hodges, president; A. P. Schlemmer, vice-president, and W. H. Anderson, cashier.

Fla., Pensacola.—The Fidelity Company, capital \$10,000, is reported being organized by Lewis A. Lavers, 6159 Michigan Ave.; Everett G. Ciske, 1252 Rosedale Ave., and William M. Sammis, 3403 Beach Ave., all of Chicago, Ill.

Fla., Plant City.—Reported chartered: First National Bank of Plant City; capital \$50,000. W. B. Herring is president and V. B. Collins cashier.

Ga., Albany.—The American Trust & Banking Co. has begun business. J. E. Toole is president. (See Manufacturers Record, May 23.)

Ga., Atlanta.—Official: The Trust Company of the South chartered; capital \$150,000; incorporators, G. Mogahee, W. S. Lounsbury, John F. Cone, A. M. Schoen, M. C. Johnson and W. H. Pickett, Jr. Business is soon to begin.

Ga., Oglethorpe.—The People's Bank, capital \$25,000, has made application for a charter; organizers, J. W. Weaver, Willie J. Weaver and D. W. Pope.

Ga., Plains.—Official: The Citizens' Bank chartered; capital \$25,000. Organizers: James M. Cook, first vice-president; J. E. Harper, second vice-president; J. C. Logan, A. C. Wellons and J. W. Timmerman. Business is to begin about September 1.

Ga., Hawkinsville.—The Pulaski County Bank, capital \$25,000, is reported organized with directors thus: J. Pope Brown, president; J. P. Glover, vice-president; D. T. Mashburn, who will probably be cashier; J. P. Brown, J. P. Glover, S. Y. Henderson, D. T. Mashburn, H. H. Sparrow, John D. Walker, T. S. Cowan and M. H. Boyer. Business is expected to begin in about 30 days.

Ga., Rome.—The Third National Bank of Rome is reported being organized with \$100,000 capital; John M. Graham, president; E. P. Harvey, vice-president, and George Bylesiegal, cashier; business will begin about November 1 at the corner of Fifth Ave. and Broad St.

Ga., Savannah.—Official: The Chatham Insurance Co. incorporated; capital \$20,000; A. R. Truslow, president; O. P. Curtis, secretary and treasurer; directors, A. R. Truslow, S. D. Richards, Dr. M. R. Thomas and J. S. Bloodworth. Business began July 24.

Ky., Erlanger.—Reported chartered: Citizens' Bank of Erlanger; capital \$25,000; incorporators, G. N. Baffington, P. M. Witt, Claude E. Slater and C. C. McCracken.

Ky., Louisville.—The People's Fire Insurance Co. is reported incorporated by John F. Boyet, T. Grant Slaughter, George L. Mettler, E. L. Wilder and J. M. Davis.

La., Merryville.—The People's Bank, capital \$25,000, is reported organized. Directors: J. W. Tooke, president; J. E. Meadows and W. H. Frayar, vice-presidents; Felix Taylor, cashier; R. E. Wilborn, James Rabb, R. E. Hall, A. O. Gunter and B. Shawver, stockholders.

Md., Baltimore.—The Fidelity Permanent Building and Loan Association is incorpo-

rated; capital \$1,040,000; incorporators, Edwin Wardfield of Howard county, F. Howard Wardfield and Harry E. Karr of Baltimore; directors for the first year, Edwin Wardfield, Van Lear Black, Stephen W. Gambrill, J. Herbert Beatson, F. Howard Wardfield, Thos. L. Berry, William H. Morris, Charles M. Cohn, Albert S. J. Owens, Benjamin F. Hearn, William H. Harris, Milton B. Williams, William Merriken and Harry E. Karr.

Md., Baltimore.—Official: The Progressive Building Association of Baltimore City, 873 N. Howard St., incorporated; J. L. Appleby, president; Harold Tweddle, secretary and treasurer, and Richard A. Cox, solicitor. Business began July 30.

N. C., Henderson.—Official: The Farmers and Merchants' Bank incorporated; capital \$25,000. Directors: R. J. Gill, president; W. B. Daniel, first vice-president; H. W. Crews, second vice-president; R. B. Crowder, cashier; J. H. Cheatham, R. L. Bennett, A. J. Harris and J. C. Kittrell. Business is to begin about August 20.

N. C., Raleigh.—The Anchor Bank & Trust Co. is reported chartered; capital \$100,000. Business is expected to begin about August 15 with offices in the Woodard Bldg., corner of Martin and Fayetteville Sts. J. O. Ellington will be president and Eugene Armbruster cashier.

Okla., Butler.—The Butler State Bank, which represents a consolidation of the Guaranty State and the Butler State banks, is reported approved; capital \$20,000; president, George J. Ames; vice-presidents, J. T. Frizzell and Kellie M. Roach; cashier, R. B. Farris; assistant cashier, Frank M. McBurney.

Okla., Knowles.—Official: The Farmers' State Bank incorporated; capital \$10,000. Directors: H. A. Hull, president; B. A. Humiston, vice-president; W. G. Parker, cashier, and John Bateman. E. V. Parker is assistant cashier. Business began July 27.

Okla., Waukomis.—Reported chartered: Farmers' State Bank; capital \$15,000. Incorporators: A. P. Wilcox and E. A. Pendarvis of Enid and Lewis W. Green of Hunter.

S. C., Andrews.—The Bank of Andrews is reported to have been granted a commission; capital \$20,000; petitioners, W. H. Andrews, Olin Sawyer and H. K. Ward.

S. C., Brunson.—The Merchants and Planters' Bank is reported to have been granted a commission; capital \$15,000; petitioners, G. W. Cone, W. F. Hogarth, S. H. Ulmer, R. O. Addison, H. H. Preacher and C. H. Bowden.

S. C., Columbia.—The Acme Building & Loan Co. is reported to have been granted a commission; capital \$20,000; petitioners, G. M. Berry, W. Gordon Besler and William D. Melton.

S. C., Mt. Croghan.—Reported chartered: The Bank of Mt. Croghan; capital \$10,000; R. E. Rivers, president; W. A. Rivers, vice-president; K. E. Taylor, secretary and treasurer.

Tenn., Chattanooga.—The Farmers and Merchants' Bank is reported; capital \$10,000; incorporators, R. P. Sudberry, A. J. Goodwin, J. W. Sudberry and R. W. Riggins.

Tenn., Edith.—The Bank of Edith, capital \$25,000, is reported organized with W. E. Crilfield, president; T. M. Garrett, vice-president; T. Lee Garrett, cashier. Business is to begin about September 1.

Tenn., Linden.—The Linden Savings Bank & Trust Co. is reported to have made application for a charter; capital \$10,000. Incorporators: J. T. Ennis, C. W. Shellenberger, John Cummins, C. P. Blake and J. H. Alston.

Tex., Center.—Official: The Center Trust Co.; capital \$100,000; surplus \$25,000. Officers: W. P. Owens, president; John S. Kennedy, vice-president; H. Ray, secretary and treasurer. Business is to begin about September 1.

Tex., Ellinger.—The First State Bank of Ellinger will, it is reported, make application for a charter; capital \$10,000; directors, Leo Frede, president; R. H. Beyer, vice-president; John Chupik, cashier; C. J. H. Meyer, H. C. Schumacher, C. W. Ehlinger.

Tex., Lyford.—The First State Bank, capital \$10,000, is reported authorized to do business. F. A. Carlson and others interested. (See Manufacturers Record, July 11.)

Tex., Pilot Point.—Official: The First State Bank chartered and incorporated; capital \$20,000. F. A. Wright is president and W. B. McShan cashier. Business is to begin August 15.

Tex., Smiley.—Reported that a new bank is to be organized. A. S. Billings is said to be interested.

Tex., Waco.—The Central Texas Exchange

Trust Co. is reported to have completed its organization by electing officers thus: R. B. Spencer, president; F. E. McLarty, active vice-president; J. M. Higginbotham, Jr., secretary and treasurer; C. L. Johnson, vice-president; P. A. Gorman, vice-president; G. P. Smith, vice-president; J. M. Higginbotham, Sr., vice-president; directors, W. H. McCullough, W. S. Duke, Jr., S. Hirschberg, Sam Sanger, K. Tidemann, W. T. Herrick, J. L. Whitworth, Cal Shelton, E. R. Nash, Ed McCullough, J. R. St. Clair, John F. Wright, W. W. Woodson, L. B. Smyth, R. H. Eanes, P. A. Gorman, J. M. Higginbotham, Jr., R. B. Spencer, C. L. Johnson, G. P. Smith, F. E. McLarty, J. M. Higginbotham, Sr., Sam Clinton, J. B. Fisher, J. S. Harrison. Business is to begin immediately.

Tex., Waco.—The Lumbermen's Security & Trust Co., capital \$100,000, it is reported, has made application for a charter. Offices will be in the Cameron Bldg., corner Austin and 7th Sts.; incorporators, W. W. Cameron, E. R. Bolton, W. J. Seale, E. W. Marshall, E. Rotan, S. M. McAshan, H. M. Minier, W. W. Pryor, R. J. Tolson, W. T. Abernathy, Ben G. Kendall, W. A. Webb, C. M. Hubby, Albert T. Clifton and James W. Bass.

Tex., Waco.—The Continental Trust Co., capital \$1,000,000, will begin business September 1 with directors thus: Sam R. Scott, president; W. E. Johnson, G. B. Reynolds, W. L. Saye, Thos. A. Caulfield, vice-presidents; J. W. Dodson, secretary; T. J. Primm, treasurer; Scott & Ross, general counsel; Sam Sanger, M. Kendrick, J. K. Collier, Dr. W. E. Colgin, S. P. Ross, J. T. Smith, J. J. Dean and Dr. N. A. Olive.

Va., Boone's Mill.—The Farmers and Merchants' Bank has been authorized to begin business; capital \$10,000. L. A. Bowman is president. (See Manufacturers Record, July 4.)

Va., Marshall.—The Marshall National Bank is reported to have made application for a charter; capital \$10,000. This is a conversion of the Bank of Marshall.

Va., Richmond.—The Richmond Trust & Savings Co. has been incorporated with capital stock of \$1,000,000, which has been fully subscribed. John Skelton Williams will probably be president.

W. Va., Wellsburg.—The Farmers' State Bank is reported to have begun business; capital \$100,000. C. B. Reeves is president. (See Manufacturers Record, March 21.)

#### NEW SECURITIES.

Ala., Alabama City.—Official: Bids are being received for \$5000 of city hall, \$18,500 of sanitary and storm water sewerage system and \$28,500 of water-works 5 per cent. 30-year bonds; voted July 15, 1912; denominations \$500 and \$1000; dated September 1, 1912. W. T. McCord is Mayor and A. L. Morton, Clerk.

Ala., Hartsells.—Reported voted: \$15,000 of school-building bonds.

Ala., Mobile.—Official: September 2 an election is to be held to vote on \$100,000 of 5 per cent. 30-year sewer extension bonds; denomination \$1000.

Ala., Tuscaloosa.—S. A. Kean & Co., Chicago, are reported to have purchased \$35,000 of 5 per cent. 30-year school bonds at par.

Fla., Bradentown.—A resolution is reported passed authorizing the issuing of \$50,000 of 5 per cent. warrants for school. L. L. Hine is secretary and superintendent public instruction.

Fla., Fort Lauderdale.—August 6, it is reported, an election was held to vote on \$40,000 of water and sewer bonds.

Fla., Tampa.—Press dispatches say that \$150,000 of Lafayette street bridge bonds are ready for sale. It is stated that the city will take \$75,000 of the issue. Bonds are of \$1000 denomination. D. B. McKay is Mayor.

Ga., Lexington.—Official: August 21 an election is to be held to vote on \$50,000 of road and bridge bonds; W. J. Knox, Commissioner Roads and Revenues of Oglethorpe county.

Ga., Macon.—Official: Bids will be received until noon August 24 for \$40,000 4 1/2 per cent. bonds for extensions and improvements to water-works after purchase of same, this being part of the \$90,000 issue voted March 18, 1911; denomination \$1000. Fifteen bonds are due January 1, 1935 and 25 on January 1, 1939. W. H. Fetter is chairman and J. E. Guilford secretary and treasurer. Of the issue \$785,000 were sold as follows: A. B.

(For Additional Financial News, See Page 74.)



## The Merchants National Bank

Established 1835  
South and Water Sts., BALTIMORE, MD.  
DOUGLAS H. THOMAS, President.  
WM. INGLE, Vice-President and Cashier.  
J. C. WANDS, Asst. Cashier.  
JOHN B. H. DUNN, Asst. Cashier.  
Capital \$1,500,000  
Surplus and Profits - - - \$900,000  
Deposits \$12,000,000

Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

## THE FIRST NATIONAL BANK OF KEY WEST, FLA.

United States Depository and Disbursing Agent.

Capital - - - - - \$100,000  
Surplus and Undivided Profits - \$40,000  
A general banking business transacted. Special attention given to collections.

## INVESTMENT SECURITIES

Southern Stocks and Bonds  
Municipal and Corporation  
Cotton Mill Stock a Specialty  
WM. S. GLENN, Broker - SPARTANBURG, S. C.

## JOHN NUVEEN & CO.

1st Nat. Bank Bldg., CHICAGO  
We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.  
Write us if you have bonds for sale.

## Delaware Trust Company

WILMINGTON, DELAWARE  
INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.  
BANKING AND TRUST department gives special attention to out of town customers' accounts.  
TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.  
REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.  
EDWARD T. CANBY, President.  
J. ERNEST SMITH, V.-Pres. and Gen. Counsel.  
WM. G. TAYLOR, Treasurer.  
HARRY W. DAVIS, Secretary.  
W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President Blanchard Randall, V.-Pres.  
Wm. S. Hammond, Cashier  
Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash.

## The First National Bank

17 South St., Baltimore, Md.  
Capital - - - - - \$1,000,000  
Surplus and Net Profits - - - 400,000  
Deposits - - - - - 6,500,000

Especially well equipped to handle the business of Southern Banks, Corporations, and Individuals and Manufacturers. We cordially invite correspondence and interviews.

## The National Exchange Bank

OF BALTIMORE, MD.  
Hopkins Place, German and Liberty Sts.  
Capital, \$1,000,000  
July 15, 1909, Surplus and Profits, \$671,631.60

OFFICERS:  
WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
R. VINTON LANSDALE, Cashier.  
C. G. MORGAN, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

## SURETY BONDS

## Fidelity & Deposit Co.

OF MARYLAND  
Home Office, - - BALTIMORE, MD.

Total Assets Dec. 31, 1911, \$8,133,000.57

Pioneer Surety Co. of the South.  
Becomes Surety on bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES  
HARRY NICODEMUS, Sec'y and Treas.  
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## Southern Steam Railroad Securities

DEALT IN  
F. J. LISMAN & CO.

Specialists in Steam R. R. Securities  
Members New York Stock Exchange  
30 Broad Street NEW YORK  
33 Pearl Street, Hartford  
Land Title & Trust Bldg., Philadelphia

CAPITAL AND SURPLUS - - - - - \$3,500,000

## THE BALTIMORE TRUST CO.

BALTIMORE, MD.  
Solicits Accounts of Banks, Bankers, Corporations and Individuals.  
Interest Allowed on Deposits Subject to Check.  
Special Rates Made on Time Deposits.

## OFFICERS

DOUGLAS H. GORDON, President  
GEORGE C. MORRISON, Vice-Prest.

CHAS. D. FENHAGEN, Vice-Prest.  
EDWIN W. POE, Sec.-Treas.



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P. W. ROBERTSON, President  
Certified Public Accountant.  
Fellow Institute of Accountants, New York.  
Fellow Va. Society of Public Accountants.

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FROM MUNICIPALITIES OR CONTRACTORS

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THE NEW FIRST NATIONAL BANK, Assets, \$6,000,000 Columbus, Ohio

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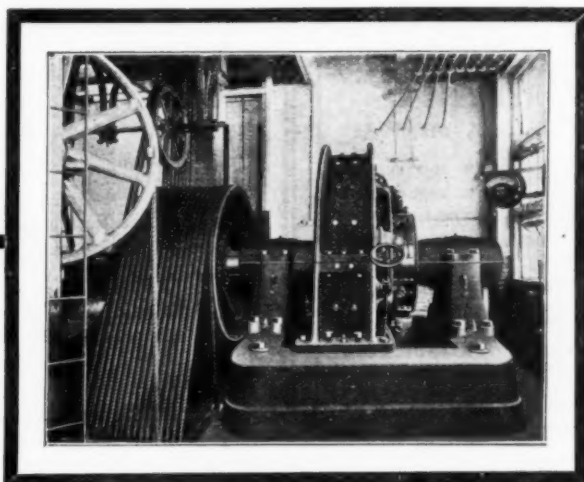
Electric Light, Power and Street Railway Enterprises  
With Records of Established Earnings

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Proven Public Utility Securities  
Correspondence Solicited

## Electric Bond and Share Company

(Paid-up Capital and Surplus, \$8,800,000)  
71 Broadway New York



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of maintenance of a rope drive equipped with "AMERICAN" Transmission Rope is a big point in its favor. "AMERICAN" Rope on properly designed drives lives for years. The only care it needs is correct slicing and run free from obstructions. Besides:

It economizes space.  
Insures positive and steady running.  
Is noiseless.  
Produces no electrical disturbance.  
No loss of power by slipping.

Precise alignment of shafting not necessary.  
Is particularly serviceable in transmitting power to different floors and in providing for future additions to power.

We invite correspondence concerning technical information, and will be pleased to give our prompt attention to those contemplating the installation of rope drives, or who have difficult questions to be solved regarding drives. Write for "The Blue Book of Rope Transmission."

## AMERICAN MANUFACTURING COMPANY

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Noble and West Sts.

Brooklyn, N. Y. C.

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COMMISSION MERCHANTS

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87-89 Leonard Street

PHILADELPHIA  
120 Chestnut Street

CHICAGO  
206 S. Market Street

RESOURCES - - - - - \$14,975,352.57

DEPOSITS DEC. 31, 1909..... \$ 8,041,252.59  
DEPOSITS DEC. 31, 1910..... 8,809,843.00  
DEPOSITS DEC. 31, 1911..... 10,344,570.57

This growth indicates that we have the ability and disposition to give GOOD TRUST COMPANY SERVICE. We can prove it—to your advantage.

ALLOWS INTEREST on daily balances of \$500 or over, subject to check, and special rates for time deposits.

ACTS AS TRUSTEE under mortgage, Registrar and Transfer Agent of Stocks and Bonds of Corporations.

Securities held on deposit for out-of-town corporations and individuals.

Acts as Financial Agent for Municipalities and Corporations.

## MERCANTILE TRUST & DEPOSIT COMPANY

OF BALTIMORE

CAPITAL - \$1,500,000.00

SURPLUS - \$3,000,000.00

Leach & Co., New York, \$700,000; City of Macon Sinking Fund, \$25,000; W. G. Solomon & Co., Macon, \$50,000.

Ga., Senola.—Official: J. H. Hilsman & Co., Atlanta, purchased on July 8 at \$10,570 the \$10,000 of 6 per cent. school-building bonds voted May 20, 1912; dated July 1, 1912; maturity July 1, 1914 to July 1, 1932, inclusive. L. L. Hutchinson is Mayor and B. A. Nolan City Clerk.

Ga., Mclg.—Official: C. H. Coffin of Chicago is reported to have purchased \$15,000 of water-works and \$5000 of light 5 per cent. 20-30-year bonds; denomination \$1000; dated July 1, 1912. E. E. Wilkes is Mayor.

Ga., Social Circle.—Stacy & Braun of Toledo are reported to have purchased \$8000 of 5 per cent. 20-year school-building bonds at par less \$135.75.

La., Crowley.—According to press dispatches, on August 26 the Sixth Ward and Crowley Drainage District will vote on \$75,000 of bonds to complete drainage project already under way.

La., De Ridder.—The Calcasieu Trust and Savings Bank is reported to have purchased at par, accrued interest and a small premium, \$50,000 of high-school bonds.

La., Lake Charles.—Reported voted: \$20,000 of Keystone drainage district bonds.

La., Lake Charles.—Reported sold: \$100,000 of 5 per cent. paying bonds.

La., Shreveport.—Reported that the Commissioners of Upper Terrebonne Drainage District have authorized the issuing of \$140,000 of 6 per cent. bonds.

Md., Annapolis.—Official: Bids will be received until noon September 2 for \$900,000 of 4 per cent. Technical School Loan of 1912; denominations, \$300,000 of \$1000 and \$300,000 of \$500. P. L. Goldsborough is Governor; Emerson C. Harrington, Comptroller of the Treasury, and Murray Vandiver, Treasurer.

Md., Baltimore.—At the November election the following loans will be voted on: \$2,000,000 for extension of electrical subways; \$2,000,000 for new bridge across Spring Gardens.

Miss., Jackson.—Reported that an election will probably be held in district No. 2 Hinds county, to vote on \$100,000 of good roads bonds.

Miss., Meridian.—Reported voted: \$35,000 of street, water and sewer extension bonds. Defeated: \$100,000 of reservoir bonds.

Miss., Oxford.—A Toledo, O., firm is reported to have purchased \$100,000 of road bonds.

Miss., Vicksburg.—Official: Bids will be received until 8 P. M. August 19 for \$100,000 of 5 per cent. street-improvement bonds. Address A. M. Paxton, City Clerk.

Miss., Vicksburg.—Official: Bids will be received until 8 P. M. August 19 for \$100,000 of 5 per cent. street-improvement bonds. Address A. M. Paxton, City Clerk. J. J. Hayes is Mayor. Further particulars will be found in the advertising columns.

Miss., Yazoo City.—An election is to be held August 9 to vote on \$17,000 of 5 per cent. warrants for the purpose of purchasing machinery for its light, water and sewerage plant. H. W. McCormick is City Clerk.

Mo., Neosho.—An election will probably be held in Newton county, it is reported, to vote on road bonds.

N. C., Dunn.—Reported voted: Sewerage bonds.

N. C., Winston-Salem.—Official: The Wachovia Bank & Trust Co. of Winston-Salem purchased the \$400,000 of 4½ per cent. improvement bonds voted July 23. R. I. Dalton is Mayor.

N. C., Wilson.—Reported voted: \$30,000 of school bonds.

Okla., Blackwell.—Reported voted: \$100,000 of bonds for building natural gas pipe line from gas field to city.

Okla., Calvin.—Reported defeated: \$17,500 of water-works bonds. C. H. Wilbanks is Town Clerk.

Okla., Kiowa.—City is reported to have sold \$8000 of bonds.

Okla., Perkins.—Reported that \$20,000 of water-works bonds have been sold.

Okla., Skiatook.—Official: Bids were opened on August 5 for \$5000 of sewer and \$3000 of electric 6 per cent. bonds; denomination \$1000; dated July 1, 1912; maturity July 1, 1937. Address City Clerk or A. W. Lucas, Mayor.

Okla., Walter.—G. R. Broadwell & Co., Oklahoma City, are reported to have purchased \$30,000 of 6 per cent. 25-year refunding bonds of school district No. 1.

S. C., Blackville.—Official: Voted \$48,000 of 5 per cent. 20-year bonds as follows: On July 29 for school building, \$20,000, and on

July 23 for water-works, \$20,000, and sewerage, \$8000. For school bonds address Y. A. Stell, chairman; S. R. Bolyston, clerk, and for water-works and sewerage, J. C. Matthews, L. F. Bonner and C. S. Wilson. A. B. Hair is Mayor.

S. C., Blacksville.—Official: Bids will be received until October 1 for \$20,000 of 6 per cent. 20-year school bonds of district No. 19. Denomination \$500. Address S. R. Boylston, secretary, Board of School Trustees. Further particulars will be found in the advertising columns.

S. C., Rock Hill.—The \$50,000 of water-works bonds recently reported voted are 20-40-year 5 per cents.

S. C., White Stone.—Bids will be received until noon August 15 at the office of the Rich Hill oil mill at White Stone for \$5000 of 5½ per cent. 1-20-year bonds; denomination \$500; dated September 1, 1912. Address J. E. White, W. W. Murph and Sumter Hayes, trustees, Rich Hill school district No. 68.

Tenn., Tullahoma.—Official: The \$25,000 of 5 per cent. sewer bonds have been sold. W. A. Marshall is Mayor.

Tex., Abilene.—Reported voted: \$20,000 of street and road bonds. E. N. Kirby is Mayor.

Tex., Austin.—The Attorney-General is reported to have approved the following securities: \$100,000 of 5 per cent. water bonds of Galveston; \$500 of 5 per cent. 20-40-year Avenger Independent school district bonds; \$30,000 of 5 per cent. 40-year San Benito bonds; \$25,000 of 5 per cent. 10-40-year Taylor St. improvement bonds; \$2000 of 5 per cent. bonds of Tom Green county common school district No. 4; \$2200 of 5 per cent. Eastland School District No. 19; \$3100 of 5 per cent. 10-20-year bonds of district No. 25, Bee county; \$1000 of 5 per cent. 10-20-year bonds of Callahan county common school district No. 19; \$100,000 of 5 per cent. Galveston water bonds.

Tex., Garrison.—Official: \$5000 of 5 per cent. 40-year school district bonds are being offered at private sale; denomination \$125; dated June 1, 1912; maturity June 1, 1932. C. R. Langston is Treasurer.

Tex., Dallas.—Official: Bids will be received until noon August 21 for \$1,025,000 of 4½ per cent. bonds as follows: City hall building, \$200,000; water-works and improvement bonds, \$400,000; fire-station building, \$125,000; public-school building, \$200,000; sanitary sewers, \$100,000; denomination \$1000. W. T. Henderson is Commissioner of Finance and Revenue. Further particulars will be found in the advertising columns.

Tex., Fort Worth.—Official: The bond election July 27 failed to carry.

Tex., Lorraine.—Official: Defeated: Lorraine precinct, Mitchell county, road bonds. Jesse H. Bullock is clerk.

Tex., Paris.—An official letter denies report that an election is to be held to vote on road bonds.

Tex., San Benito.—San Benito, Cameron county, drainage district No. 3 has issued \$450,000 of 5 per cent. bonds.

Tex., Swan.—Reported that \$6000 of school-building bonds were recently voted.

Tex., Taylor.—Municipal bonds are reported voted.

Tex., Venus.—Reported voted: \$75,000 of road bonds.

Tex., Waco.—Reported that \$35,000 of storm sewer bonds were recently voted.

Va., Accomac.—Official: The \$10,000 of Atlantic district, Accomac county, road-improvement bonds were awarded on July 25 as follows: David H. Lewis, Chincoteague, Va., \$2000; T. P. Selby, Chincoteague, \$2000; Farmers and Merchants' National Bank, Onley, Va., \$6000; Interest, \$2000 at 4½ per cent.; \$1000 at 4 6 10, \$1000 at 4½, and \$6000 at 4½; denomination \$100; dated September 2, 1912; maturity September 2, 1942. John D. Grant, Jr., Accomac, is Clerk.

Va., Culpeper.—Bids will be received, it is reported, by W. E. Coons, Clerk of Culpeper county, until August 19 for \$40,000 of 5 per cent. road bonds.

Va., Dublin.—Reported voted: \$100,000 of road bonds of Dublin Magisterial District, Pulaski county. Address C. W. Harman.

Va., Eastville.—Official: Bids will be received by Geo. S. T. Tyson, clerk Board of Supervisors of Northampton county, until August 15 for \$5000 of 30-year Franktown district road-building bonds; denomination \$500.

Va., Pulaski.—September 11, it is reported, an election is to be held to vote on \$50,000 of sewerage bonds. A. A. Campbell is judge of the circuit court.

Va., Suffolk.—Breed & Harrison of Cincinnati are reported to have purchased at par and \$1000 premium \$40,000 of municipal bonds.

W. Va., Chester.—Reported sold: \$20,000 of school bonds.

### FINANCIAL NOTES.

The conversion of the Bank of Manatee of Bradenton, Fla., into the First National Bank is reported approved; capital \$40,000.

The Bank of Denton, Davidson county, North Carolina, has, it is reported, increased its capital from \$7500 to \$10,000.

The Citizens' State Bank of Alvin, Tex., according to press dispatches, has decided to increase its capital from \$25,000 to \$50,000.

The Drovers' National Bank, Kansas City, Mo., will increase its capital from \$300,000 to \$500,000; Harry L. Jarboe, Jr., president.

The Parkin Home Bank of Parkin, Ark., according to press dispatches, proposes to increase its capital from \$10,000 to \$25,000.

Press dispatches from Birmingham, Ala., say that the Southern States Fire & Casualty Insurance Co. has voted to change its name to the Southern Fire Insurance Co. D. E. Manasco is president.

## Young & Selden Co.

BALTIMORE, MD.

### DESIGNERS

AND

### LITHOGRAPHERS

OF

### High-Class Stationery

FOR

Banks, Mills and Commercial Houses

## ASSETS REALIZATION COMPANY

CAPITAL, - \$10,000,000

Through its highly specialized organization, finances large enterprises under conditions requiring special investigation or close supervision. No formative or speculative projects considered.

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NEW YORK 25 Broad Street PHILADELPHIA Lafayette Building CHICAGO First National Bank Building

## A Good Investment

With absolute guarantee of the safe return of the principal is what an investor desires. We believe we have what you want.

Write us.

TENNESSEE MORTGAGE & INVESTMENT CO. JACKSON, TENN.



### Think of the Drudgery

the worry and the loss you could save if you knew absolutely that every figure with which you deal had been handled without error.

140,000 users of Burroughs Bookkeeping Machines save that drudgery, worry and loss.

Quit doing machine work with your head—make money.

Burroughs Adding Machine Co. 80 Burroughs Block, Detroit, Michigan

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Atlanta & West Point R. R.

THE WESTERN RAILWAY OF ALABAMA

Offers excellent locations for

Truck, Fruit, Stock

And General Farming

Available Factory Sites. Abundance of Raw Material and Good Transportation Facilities.

Write for information.

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General Agent

EAST POINT, GA.

## Capital for Southern Industries

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(Established 1865)

105 So. La Salle Street

CHICAGO, ILLINOIS

## To Manufacturers and Capitalists

Contemplating the Establishment of Industrial Enterprises

Attention is called to the exceptionally favorable location of

## NEWPORT NEWS, VA.

on Hampton Roads, fifteen miles from the sea. Deep water, railway and sea transportation facilities unrivaled. Climate salubrious. Apply to

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OLD DOMINION LAND COMPANY NEWPORT NEWS, VA.





# Barrett's PAVING PITCH



Spring Grove Avenue, Cincinnati, Ohio. Pavement filled with Barrett's Paving Pitch.

## As Against Sand, Cement and Asphalt

In choosing a filler for a block pavement you must ask the following questions, and you will get the following answers from the advocates of sand, cement, asphalt and pitch, respectively:

	Sand.	Cement.	Asphalt.	Pitch.
1. Does it provide for expansion?.....	Yes	No	Yes	YES
2. Does it provide for contraction?.....	Yes	No	No	YES
3. Is it absolutely waterproof?.....	No	Yes	No	YES
4. Is it permanent?.....	No	Yes	No	YES
5. Will cracks be avoided?.....	Yes	No	Yes	YES
6. Does it leave sufficient joints for foothold?.....	Yes	No	Yes	YES
7. Is it easy to use correctly?.....	Yes	Yes	No	YES
8. Can the pavement be cut without destroying the blocks?.....	Yes	No	Yes	YES

All except Pitch say "No" on some points, and every point in the list is vital. Barrett's Pitch Filler has all the virtues of all the other fillers and none of the faults. It is used almost everywhere by almost everybody.

*Booklet on request.*

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New York      Chicago      Philadelphia      Boston      St. Louis      Cincinnati      Cleveland  
Pittsburgh      Minneapolis      Kansas City      New Orleans      Seattle      London, Eng.

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## MEN WANTED

**EXCELLENT OPPORTUNITY** for young practical foundryman with experience in manufacture of agricultural implements who has \$5000 to invest for an interest in a Southern plant; successful for 28 years; owner wishes to retire, but would be willing to stay as partner or form company. Address No. 1066, care Manufacturers Record.

**WANTED**—Utility man for large hardware business; must be above the average with eight or more years' experience. Address No. 1070, care Manufacturers Record.

**WE WANT** manufacturers' agents or salesmen who are familiar with the sale of building specialties to sell, on commission, the best metal store front (copper) made. We want one live wire in each city. We have the real goods and we only want real salesmen. Address No. 1049, care Manufacturers Record.

## AGENCIES WANTED

**ENGINEERING FIRM** located in New York city wishes to correspond with manufacturer seeking representation; ten years' selling experience; extensive acquaintance; can produce business with an article or product of merit. Address No. 1092, care Manufacturers Record.

**TECHNICAL CHEMIST**, with laboratory, having wide selling experience and intimate acquaintance among manufacturers and jobbers, is prepared to accept agency for articles of merit for N. Y. and vicinity; security; references. Address No. 1085, care Manufacturers Record.

## SITUATIONS WANTED

**LAND INSPECTOR**—Competent examination and advice as to values anywhere in the South; highest references. Earl Stubbfield, Vaughan, Miss.

**WANTED**—By September 15, position as chief clerk or office manager with manufacturing or industrial enterprise, North Carolina preferred; now employed; 10 years with present concern, but opportunity for further advancement limited. Will consider first-class offer only, with chance to rise. A-1 references furnished. Address No. 1085, care Manufacturers Record.

**YOUNG MAN** with exceptional experience in engineering and construction work, executive and selling ability, desires to represent reliable firm in Eastern Pennsylvania and adjoining territory. Address No. 1094, care Manufacturers Record.

**YOUNG SOUTHERN MAN**, cannot stand rigors of Northern winters, wants position in South; good stenographer and typewriter operator, but would prefer outdoor work; best of references. Address "J. G.", 1116 Fisher Bldg., Chicago, Ill.

**A CAPABLE OFFICE MAN**, experienced in accounting, purchasing and traffic work, holding important position, desires to make a change. If in need of competent man or considering a change, address No. 1072, care Manufacturers Record.

**RAILROAD MANAGER** or superintendent open for engagement account change of management; young man, clean record, wide experience, successful superintendent of large roads; wants change organization, operation and maintenance of small railroad, either common carrier or tramway; economy and efficiency guaranteed. Lloyd Hill, Bainbridge, Georgia.

**WANTED**—To represent a reliable manufacturer of roofing material, paints, etc., in State of Texas, with headquarters at Houston; have established trade and could guarantee results with right article and price; references as to ability, etc., cheerfully furnished. Address No. 1087, care Manufacturers Record.

**WANTED**—Position as superintendent of water-works plant where can make a showing for economy and efficiency; have had 12 years' experience on various plants in all phases of the work and am competent to take charge of plant, large or small, and bring same to high state of efficiency; prefer location in Piedmont section of the South; good references and good habits. Address No. 1081, care Manufacturers Record.

## BANKS

**THE PALMETTO NATIONAL BANK**, Columbia, S. C., capital \$250,000, solicits accounts of banks, firms, corporations and individuals, either commercial or savings accounts.

## HARDWARE BUSINESS FOR SALE

**GOOD INVESTMENT**—For Sale—The whole or controlling interest in the capital stock of a wholesale hardware business and extensive jobbers in building materials, located in one of the largest and most progressive cities in the South; business established without interruption for more than a hundred years; principal stockholders have large real estate interests requiring their attention; \$200,000 necessary for the purchase of stock and working capital. Full information given to bona-fide direct investors who can control the above amount of capital; will not treat with agents or brokers. Address No. 1089, care Manufacturers Record.

**Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 24 lines. Allow seven words per line. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year, as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.**

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**RENSSELAER POLYTECHNIC INSTITUTE**, TROY, N. Y.—Courses in Civil, Mechanical and Electrical Engineering, and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

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**MANUFACTURERS—INVESTORS**—No quicker way to fortune than to market a good invention. We have them for sale. Write Adam Fisher Mfg. Co., 83-16, St. Louis, Mo.

**WANTED**—To correspond with the owners of second-hand cold-blast furnaces of not less than 20-ton capacity. Memphis Mining & Manufacturing Co., Potts Camp, Miss.

**CONTROLLING INTEREST** can be secured in a large, well-established and paying hardware business; best location in the South; will require \$20,000 to \$30,000; interest now owned by retiring partner in bad health. This is an exceptional opportunity. Address P. O. Box No. 1061, Richmond, Va.

**SYNDICATES** or capitalists able to finance or take an interest in a big suburban development proposition, with four miles of bay front, close to one of the most progressive and fastest-growing Gulf cities, will address No. 1093, care Manufacturers Record.

**I DESIRE** to get in touch with a few men who will join me in purchase of 20,000 acres choice Florida pecan land at \$4.50 per acre. Properly handled can net \$5 per acre raw, and upwards of \$50 improved. No loss possible. Write W. S. Vincent, Lansing, Mich.

**AN OPPORTUNITY** for a good live business man with executive ability to invest \$15,000 in a corporation and become one of its officers with salary of not less than \$1500 per annum, and live in one of the best towns in the South. Business paying first year 25 per cent. net. As a geographical location this is the most central of any point in the United States to reach the East and Western markets; cheap and abundant raw material, cheap labor. Close corporation; safe as any bank.

We need the man as much as the \$15,000. A good lumberman preferred. Do not reply unless you mean business. We invite the closest investigation. Address "R. H. F.", Roanoke, Va.

**BUSINESS INVESTMENT**—Capitalist wanting a profitable business, well established and capable of great expansion, owning a municipal franchise and a monopoly, at bargain figures, address M. F. Simmons, Kansas City, Mo.

**SYNDICATES OR CAPITALISTS** able to invest money in farms, mineral tracts or oil lands, take note that now is the best time to acquire properties in the Mexican Republic. I'm in direct connection with owners disposed to sell their lands. They have fine propositions. For particulars apply to E. Q., Box 934, Mexico City, Mexico.

**ABSTRACTS OF TITLE**—a specialty. Loans negotiated. Inheritances investigated and procured. Real Estate Title Co., New Martinsville, W. Va.

**WANTED**—Cast-iron hardware specialties to manufacture; have first-class pattern shop, modern moulding equipments and nickelling plant; capacity, 20 tons per day. Cumberland Foundry & Mfg. Co., Nashville, Tennessee.

**FOR SUBURBAN DEVELOPMENT**—For Sale—Splendid tract of land on electric line, many other advantages for subdivision; close in, adjacent to growing suburban section of this rapidly growing city; something worth buying and developing or holding for advance. R. H. Scruggs, Norfolk, Virginia.

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**WANTED**—Banks, trust companies, lumbermen and manufacturers requiring intelligent estimates on standing timber, either hardwood or pine, to address T. O. Price, 428-30 Stahlman Building, Nashville, Tenn. Reference, Hermitage National Bank.

## VIRGINIA HOMESTEAD

**FOR SALE**—One of the finest estates in Eastern Virginia; 1187 acres; splendid mansion; ample outbuildings; well located. R. B. Chaffin & Co., Inc., Richmond, Va.

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**TECHNICAL SUPPLIES**—Manufacturers' agents. Drawing materials, mathematical, scientific and engineering instruments. Enterprise Typewriter & Supply Company, 316 N. Howard St., Baltimore, Md.

## FACTORY LOCATION FOR SALE

**FACTORY LOCATION** for sale in business section, or client will build to suit tenant. Inquire by letter. W. F. Clarke, Attorney, Norfolk, Va.

## FACTORY AND WAREHOUSE SITES

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## INDUSTRIES WANTED

### CANNING FACTORY

**WANTED**—Webster wants a canning factory; offers greatest inducements; splendid opportunity for experienced canner. Address Orchards Co., Webster, Texas.

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**NORFOLK, VIRGINIA**, is a growing, thriving city; splendid climate; eight trunk-line railroads; great harbor; steamships to domestic and foreign ports and many other advantages; liberal inducements for manufacturing plants, home seekers and those who want to build and sell houses. Address Ballentine Realty Corporation, Norfolk, Va.

**WICHITA FALLS, TEXAS**, is 114 miles northwest of Fort Worth, 158 miles southwest of Oklahoma City. No important city within much greater distance in any other direction. Trade territory in which we have advantage over any competitor growing rapidly. Railroads in seven directions. Home industry better protected in Texas than any other State. Get the facts before locating your factory or branch. Inquiries not made public. Chamber of Commerce, Box 4.

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**FOR SALE**—NEWSPAPER PLANT in a new and fastest-growing town in New Mexico; worth about \$1700. Also for other industries, agriculture or otherwise, write Heilbrunn Blair, 418 Roberts-Banner Bldg., El Paso, Texas.

### SHOW CASE AND FIXTURE FACTORY

**ESTABLISHED BUSINESS FOR SALE**—Showcase and fixture factory; land, buildings and improved machinery, practically new, electrically driven; very low power cost; established business with high reputation in line territory with excellent shipping facilities; no labor unions; equipment suitable for manufacture of furniture or any kind hardwood work. Montgomery Showcase Co., Montgomery, Ala.

### MANUFACTURING PLANT

**FOR SALE**—Manufacturing plant, steel, brick and stone construction, 110x541 feet, with addition, engines, dynamos, etc., at about one-third original cost; located 32 miles from Chicago on C. & N. W. Ry. Fred W. Rogers, 1315-1319 Wells Bldg., Milwaukee, Wis.

**FOR SALE OR RENT**—Manufacturing plant at Kingston, N. C.; six acres ground; two buildings, each 110x50; two stories, brick; 150 H. P. Corliss engine, two boilers, dynamos and motors. Kingston Real Estate Co., Hackettstown, N. J.

**FOR SALE**—Splendid manufacturing plant, adaptable to any kind of business; lot 180x550 feet; all city improvements and utilities made and installed; main plant four-story brick, 33,000 square feet floor space; two-story brick ell adjoining, 11,250 square feet floor space; brick boiler and engine room with two 100 H. P. tubular boilers, 150 H. P. Corliss engine, 700-light dynamo, direct-current engine, shafting, ventilating system, etc.; corrugated-iron warehouse, 75x100 feet, 50 feet east of the main building; 50x62½ machine and cooper shop 50 feet from main building and warehouse; nice office building on corner of lot fronting street. Ground and improvements cost \$75,000 a few years ago to build; priced to us at \$50,000, with instructions to get offer. You cannot buy a better plant in a better city better located than this. Rush C. Watkins Co., Realty Bldg., Louisville, Ky.

### BOX MILL

**FOR SALE**—Complete box mill, modern machinery and equipment, now operating two cars per day; money-maker at big sacrifice; easy terms. Jordan & Davis Co., Norfolk, Va.

## HANDLE PLANT

**FOR SALE AT PUBLIC AUCTION**, August 14, 1912, near Hanover, Va., the entire plant of the West Point Handle Co., equipped with up-to-date machinery for turning out all kinds of handles, such as axe, pick, hammer, sledge, hatchet and chisel handles, singletrees, etc. (lathes, DeLancey and Ober make); also a fine lot of hickory timber at plant. Great opportunity. Must and will be sold on above date. For particulars write Amos W. Miller, Secretary, Bridgewater, Va.

## MACHINE TOOL PLANT

**FOR SALE**—Old-established and prosperous machine-tool manufacturing business, located near Boston; product on market for years, and among the best in its line; modern plant and equipment; present owner getting along in years and wants to retire. Edward Wilbur, 125 Summer St., Boston, Mass.

## BRICK AND TILE PLANT

**ATTENTION, BRICK MEN!**—For Sale at a Sacrifice—Controlling interest in Garrison Brick & Tile Company of Garrison, Texas. This company owns plant and 600 acres best fireproof and paving brick clay in South; has railway switch, low freight rates and ready market; popularity proven by receiving unsolicited orders for forty-five million brick in one season. L. C. Christian, Trustee, Houston, Texas.

## CANNING PLANT

**FOR SALE**—Old-established and prosperous canning business, packing high-class line of fruits, vegetables, jellies, jams, etc.; modern plant, located near Boston. Edward Wilbur, 125 Summer St., Boston, Mass.

## BEVELING PLANT

**FOR SALE**—Complete beveling plant, mills, motors, etc., all new. For particulars address G. A. Spies Art Glass Co., 11th and Clark Ave., St. Louis, Mo.

## TELEPHONE SYSTEM

**TELEPHONE SYSTEM**, yielding 50 per cent. income; newly erected; modern equipment; rural; local; long-distance connections; progressive town; rich farming section; climate and health unsurpassed. Home Realty & Investment Co., Fountain Inn, S. C.

## SAW GIN

**COMPLETE 4-60 saw gin outfit**, including pneumatic elevator system, 50-horse-power engine and boiler, hydraulic double box revolving steam tramping press, line shafting and pulleys. Will give terms or exchange for other machinery or real estate. Jefferson Iron Co., Birmingham, Ala.

## FULLY EQUIPPED BRICK PLANT

**NORTH GEORGIA BUSINESS OPPORTUNITY**—Owner of fully-equipped brick plant and inexhaustible supply of clay will sell all or half interest to a company or an experienced brickmaker. Present owner is a business man in city of 20,000, and needs competent party to operate the plant and take an interest. This proposition will bear close investigation, which will show that I have something good. An inquiry from responsible party will bring full particulars. Address No. 1091, care Manufacturers Record.

## MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

**IF YOU WANT** cypress lands, pine lands, cut-over tracts, colony tracts, ten and twenty-acre tracts, orange groves, truck farms, write to G. C. Hogan, Box 536, Lakeland, Fla. Fifteen years in the State.

**5000 ACRES** coal and mineral rights; vein four to five feet in thickness; C. & A. R. R. passes through tract. Address J. B. Jones, Higbee, Mo.

**BEFORE YOU BUY LAND** or make an investment in the South or Southwest send for a copy of my "Investor and Land Buyer" with list of splendid properties for sale; free on application. Jo A. Parker, Parma, Mo.

**REAL ESTATE**—Large tract of land in suburb of Washington, D. C., for sale at special investment price; splendidly located for high-grade development. Price will justify holding for increased value from rapid development of west end of city. Send for particulars. American Land Co., Southern Bldg., Washington, D. C.

## CITY PROPERTIES

**173 FEET** front by 150 deep on Houston street, San Antonio, next block from Clower Building and one block from the big Rand building now going up, which will be used as a big department store; price \$1000 per front foot; will sell part. Kerr & Moore, Land Merchants, Muldoon, Texas.

**IN THE DISTRICT OF COLUMBIA**, 103 acres extremely desirable for subdivision, fronting on 16th street and the National Rock Creek Park, at a bargain price. Property immediately adjoining has been subdivided, and in a few months almost \$100,000 worth of lots have been sold at 20 cents to 50 cents a square foot. Full particulars upon request. Robert E. Heater, Colorado Building, Washington, D. C.



# Classified Opportunities

## COAL LAND FOR SALE

ONE THOUSAND ACRES OF COAL LAND on railroad; can be developed at small cost; three to four workable seams; quality of coal good; price reasonable. Address W. S. Palmer, Keokee, Lee county, Va.

## COAL AND TIMBER LANDS

OWNERS OR PURCHASERS of coal and timber properties. If you want to buy or sell first-class coal or timber properties located and priced right, address G. G. Hoster, Huntington, W. Va.

## TIMBER FOR SALE

FOR SALE—Sixteen million feet long-leaf yellow pine. For prices, terms and other information address J. M. Lofley, Bainbridge, Ga.

FOR SALE—Large and small tracts of timber on and near railroad; virgin white oak. Address J. L. Oldham, Salt Lick, Ky., Box 111.

WANTED—Buyers for "Huen" timbers, practically all heart long-leaf yellow pine. Sizes 4x4's to 12x12's, any length up to 60 feet. Prefer orders for small dimensions. Eli B. Manning, R. 6, Fayetteville, N. C.

ABOUT 300,000,000 feet, chiefly slick bark, large swamp pine timber, including 6,000,000 feet export poplar, 60,000,000 feet hardwood, all original growth, located Eastern North Carolina, on Norfolk Southern Railroad; 8 cent rate to Norfolk; \$2.50 per M. feet to Baltimore via inland waterway. Skidder proposition in view of ocean, greatest proposition for manufacturing lumber in the South. Climate ideal; negro labor abundant. Address B. H. Tyson, Pikeville, N. C., Box 33.

## TIMBER LAND FOR SALE

PINE AND HARDWOOD TIMBER in lower South Carolina for sale; 20,000,000 feet of standing pine and hardwood timber, with five and ten-year leases over same, and 10,000,000 feet additional joining that can be secured at reasonable figures; considered one of the best logging propositions now on the market. All of the above offered as one proposition; located on the Charleston & Western Carolina Railway in lower South Carolina. Freight rate to port, 54c. per hundred pounds. Georgia Real Estate Company, Savannah, Ga.

FOR SALE—In Western North Carolina, 15,000,000 feet of hardwood stumpage, largely oak and poplar, including all wood products on about 300 acres; within six miles of main line Southern Railroad; convenient and accessible; good climate; prompt action necessary; responsible operators only need apply. Address P. O. Box 1094, Asheville, N. C.

TWO HARDWOOD TRACTS FOR SALE. Particulars on application. G. W. Faulk & Son, Leakeville, Miss.

FOR SALE—Hardwood timber; two tracts, 300 acres, 1000 acres; oak, poplar, hickory, chestnut, pine; near railroad; \$10 an acre. Wm. M. Pratt, Marion, N. C.

## FARM AND TIMBER LANDS

FOR SALE—Large and small tracts of timber lands, also good farming land. Polk Real Estate Co., Little Rock, Ark.

## COLONIZATION LANDS

220,000-ACRE tract of splendid agricultural land in Texas, on the T. & P. Ry.; smooth surface; rich soil that produces crops without irrigation; unexcelled for colonization purposes; price \$7 per acre. If interested address No. 1071, care Manufacturers Record.

COLONIZERS AND INVESTORS.—Three thousand acres of choice Dimmit county artesian belt land, 2½ miles railroad station; suitable for development or colonization; surrounded by the best flowing wells in Dimmit county, and adjoins land now selling above \$100 per acre. The price and terms are right. Texas Land & Loan Co., 229 East Houston St., San Antonio, Tex.

ALABAMA COLONIZATION LANDS.—Large tracts unimproved lands near Mobile; great port; also in other parts of State; low prices; no better propositions in South; productive soil; a present opportunity. Write us. Alabama State Agricultural Land Co., Center, Alabama.

## PLANTATIONS FOR SALE

COTTON PLANTATION FOR SALE.—7720 acres; 3743 acres cleared, balance in timber, of which 2300 acres of the timber has been sold. This is a highly-improved bottom plantation, with all necessary equipments, estimated to have \$25,000 worth of improvements. We are offering this on terms for \$200,000. This land will raise a bale of cotton and 75 bushels of corn easily to the acre. Polk Real Estate Co., Little Rock, Ark.

MISSISSIPPI.—3555 acres of good hill cotton land for sale; now in successful operation; well supplied with negro labor. The plantation lies between two branches of the Illinois Central R. R.; nearest shipping point four miles from the dwelling. The land corners within half mile of the shipping point. A sufficiency of cabins for tenants, stables, cribs, cotton pens and all outbuildings; 45 head of mules and horses, cows, farming implements and feedstuff. Price very low; terms good. Address A. C. Leigh, Grenada, Miss., bona-fide owner.

## ORANGE GROVES

ORANGE GROVES planted, cultivated and guaranteed for four years; \$500 per acre; \$50 down, \$10 monthly; no interest or taxes; 15 miles from New Orleans. N. J. Ciesl, 821 Gravier St., New Orleans.

## FRUIT, FARM AND TRUCK LANDS

### ALABAMA

C. C. MECHEM, Bank of Mobile Building, Mobile, Ala., makes a specialty of handling small tracts of land on easy terms. He guarantees his titles in the Title Insurance Co. of Mobile, Alabama, charges no interest on deferred payments and pays all taxes until deed is delivered. Call and see him.

### ARKANSAS

FOR SALE—2636 acres of unimproved land in Saline Co., lying between Little Rock and Hot Springs. Price \$5 per acre. Polk Real Estate Co., Little Rock, Ark.

FAMOUS SPRINGDALE FRUIT DISTRICT, in Ozarks, northwest Arkansas; the Italy of America; no malaria, mosquitoes, negroes or saloons; 32 acres, two miles out, part bearing orchard, fine buildings, \$4000; buyer gets part crop. Free list. Fredricks Realty Co., Springdale, Washington Co., Ark.

FOR SALE—FARM LANDS.—A very attractive proposition for idle money. A fine farm, containing 242 acres second bottom White River land, located at station on main line of Iron Mountain R. R., nine miles from one of the best towns in Arkansas, population 6000; 250 to 400 acres in cultivation, now growing a fine crop; plenty of good tenant-houses; two nice residences; good store building at station which rents for \$200 per year; lots of good timber left on 1000 acres. Will sell all the above, together with \$9000 first mortgage notes, secured by 720 acres of same land, adjoining, which sold for \$20 per acre; one third cash. Price for quick sale, \$27,000 cash.

We also have business opportunities of all kinds for sale. Farm lands and timber lands. If interested in investments of any kind we can assist you without cost. Investment Brokers Corporation, 316-17-18 Tenn. Trust Building, Memphis, Tenn.

### FLORIDA

FOR SALE—Fruit and truck farm, 20 acres in cultivation, direct from owner. Price \$1400. Address H. E. Jordan, Christina, Polk county, Fla.

### GEORGIA

FARM LANDS.—Selected properties, improved and unimproved, in South Central Georgia, Houston county; you get the farm you want anywhere in Georgia. W. A. Strother, Perry, Ga.

### MEXICO AND TEXAS

MEXICO.—The man who is "posted" need not be told that Mexico today is the best field for investment. He knows. We have for sale at low prices some remarkably attractive properties.

Texas lands for sale; farms and colonization tracts; one large tract, three-fourths agricultural, at \$4 per acre. Southwestern Development & Land Co., San Antonio, Tex.

### SOUTH CAROLINA

FOR SALE—240-acre farm, 1 mile of R. R. station, 4 miles to Darlington, 5½ to Florence, S. C.; good land, well located; 140 acres cleared; 7-room dwelling; 4 tenant-houses; a bargain at price, \$37.50 per acre. A. R. Price, Florence, S. C.

### TEXAS

FOR SALE—202 acres, near Fairbanks, northwest Houston, Francis Fry survey, abstract No. 267; bargain if taken soon. C. B. Taylor, Owner, Urbana, Ill.

KERR COUNTY RANCH.—5500 acres; 20 acres in cultivation; all fenced; two small houses, barns, sheds and pens; two running creeks through place. Price \$4 per acre. Petty & Boudreaux, City National Bank Bldg., San Antonio, Texas.

FINE LANDS IN COAST COUNTRY.—RAIN BELT.—Soils, dark sandy loam and black bog-wallow; red clay subsoil; any size tract, 40 acres up; improved and unimproved; near two towns; two railroads; good schools and churches. Prices right. Terms reasonable. Southwestern Development & Land Co., San Antonio and Houston, Texas.

14,000 ACRES, artesian belt, at \$8. 16,000 acres black prairie land at \$14; snap; hurry. South Texas Land Company, Corpus Christi, Texas.

SAN ANTONIO, UVALDE & GULF RAILROAD, now building, will open the finest fruit and truck growing sections in the State. Strong flow of artesian water at shallow depth. We can supply small irrigated farms or colonization tracts. Opportunity to double your money within year. West Texas-Mexico Land Co., San Antonio, Texas.

FOR SALE—400 acres of good black land in Calhoun county; one mile from station; on the coast; \$40 per acre; easy terms. Write J. M. Rosborough, Jr., Victoria, Tex.

IRRIGATION FARM.—2000 acres, \$15; one-third down; same kind land selling \$250 watered; water this for \$12; commission 5 per cent. Hurst, Hereford, Tex.

## MACHINERY AND SUPPLIES

FOR SALE—Crescent No. 2 continuous concrete mixer; 2½ H. P. Novo gasoline engine; in first-class condition. Will sell at a bargain if sold at once. Geo. E. Morat, Paris, Ky.

A COMPLETE 100-barrel sifter-system flour and feed mill machinery for sale or trade; good running order. John Haffer-mehl, Hillsboro, Kans.

FOR SALE—Skinner side-crank self-contained engine, 12"x16" cylinder, flywheel 14"x12", 65 H. P., all fixtures and connections, complete; will sell at a great bargain; engine in first-class condition; used but little. R. W. Gray, China Grove, N. C.

## FINANCIAL

FOR SALE—I have for sale 8 per cent mortgages on improved farms in North Louisiana; none better. W. A. Jones, authority on North Louisiana Lands, Shreveport, La.

MORTGAGE LOANS, carefully selected, on good cotton and corn farms in Southern Oklahoma; 5-year, 8%, \$250 to \$2500, to suit investors. This country's population, 25,000; assessed values, \$10,000,000; one of largest cotton producers. Can place your money very safely; 25 years' experience; 10 years bank cashier here; intimately acquainted with lands, people, conditions; abundant references; circular. Write J. G. James, Roff, Okla.

## PATENT ATTORNEYS

EUGENE C. BROWN, ENGINEER and Patent Lawyer, Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions are considered both from Engineering and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my especial qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

PATENTS THAT PROTECT. Careful, honest work in every case. Patent your ideas; they may bring you wealth. 64-page book free. Fitzgerald & Co., 817 F street, Washington, D. C. Established 1878. Send for our book.

INVENTIVE GENIUS deserves reward. We undertake manufacture or sale of patents obtained through our attorneys. Adam Fisher Mfg. Co., 88-14, St. Louis, Mo.

PATENTS THAT PROTECT AND PAY. Advice and books free. Highest references. Best results. Promptness assured. Send sketch or model for free search of Patent Office records. Trade-marks registered. Watson E. Coleman, Patent Lawyer, 624 F. St., Washington, D. C.

PATENT YOUR IDEAS.—\$100,000 offered for one invention, \$500 for another; book, "How to Obtain a Patent" and "What to Invent," sent free; send rough sketch for free report as to patentability; patent obtained or fee returned. We advertise your patent for sale at our expense. Chandler & Chandler, patent attorneys, 978 F street, Washington, D. C.

PATENTS secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$16,000 for others. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., Washington, D. C.

## Woodworking Machinery

### FOR SALE

For Sale—One first-class Stationary Boiler, 42 in. diam., 22 ft. long, 10 6-in. riveted flues, 1 dome, 2 mud-heads; will carry 150 lbs. steam; breeching, grate bars and fire front included.

For Sale—One 8-in. Hand Planer. One Fel-loe Cutting-off, Boring and Doweling Machine. Both J. A. Fay & Egan make. Both new and never used except to test machines. For Sale—One set Insulator Pin and Bracket Machinery; 1 Bracket Lathe, 4 Pin Lathes, 1 Splitting Machine, 1 Boring Machine, 1 Threading Machine; all necessary bits and knives; also countershafts.

O. C. GALLOWAY,  
Successor to The J. B. Galloway Co.,  
Clarendon, Ark.

## COMPLETE BRICK PLANT

### FOR SALE

Engine, Boiler and Brick Machinery as a whole or any part thereof. Capacity, 25,000 per day. Located in town of 3000. Nearest competing plant, 50 miles. Splendid opportunity.

SOUTHERN BRICK CO.,  
Fredericksburg, Va.

## KNITTING MILL WANTED

In rapidly growing town in the cotton belt of the South.

## LIBERAL FINANCIAL ASSISTANCE

Given to reliable party or parties who wish to promote this proposition.

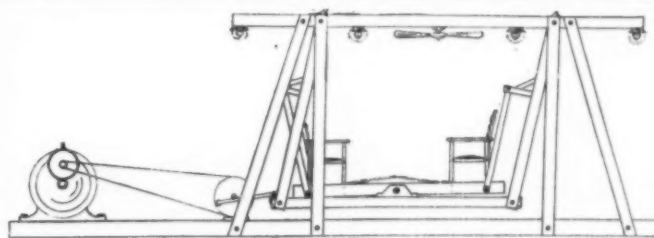
## TOWN LOCATED CLOSE TO A METROPOLIS

And equitable freight rates enjoyed in competition with larger cities and towns. Healthful climate and in a rich agricultural section.

FOR INFORMATION ADDRESS

RAYMOND LAND CO.

RAYMOND, GA.



## PATENT FOR SALE

Either one-half or entire interest in United States patent to "COMBINED ELECTRIC SWING AND FAN." Swing is operated by either direct or alternating current; also its fan overhead and electric lights. This invention will mean a gold mine to some corporation or individual with sufficient cash to manufacture and place it on the market. If really interested, write me.

S. M. TWINE

Grand Masonic Temple

Pine Bluff, Arkansas

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

## GOVERNMENT PROPOSALS

**PROPOSALS FOR STEEL OIL TANKS.** Steel Channels, Ingot Copper, Electric Wire, Indicator Cocks, Low-service Pumps, Glass Globes, Dishes, Tablespoons, Morocco Leather, Cardboard, Paper, and Library Paste. Sealed proposals will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. August 27, 1912, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 723) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La.; and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala.; and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., July 30, 1912. Sealed proposals will be received in this office until 3 o'clock P. M. on the 4th day of September, 1912, and then opened, for the extension, remodeling, etc. (including plumbing, gaspiping, heating apparatus, electric conduits and wiring, interior lighting fixtures, and approaches), of the United States postoffice and courthouse at Pensacola, Fla. The work contemplated is the construction of a three-story, basement and attic extension of approximately 3400 square feet ground area; fireproof construction, stone facing and slate roof; and certain remodeling and repairing of the present building. Drawings and specifications may be obtained from the custodian at Pensacola, or at this office, at the discretion of the Supervising Architect. O. WENDE-ROTH, Supervising Architect.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., July 25, 1912. Sealed proposals will be received at this office until 3 o'clock P. M. on the 6th day of September, 1912, and then opened, for the extension, remodeling, etc. (including plumbing, gaspiping, heating apparatus, electric conduits and wiring, lighting fixtures and approaches), of the United States Postoffice and Courthouse at Guthrie, Oklahoma. The extension will be four stories and basement, with a ground area of about 4800 square feet; fireproof construction except ceiling and roof; brick faced with stone and terra-cotta trimmings; slate roof. Drawings and specifications may be obtained from the custodian at Guthrie, Oklahoma, or at this office, at the discretion of the Supervising Architect. O. WENDE-ROTH, Supervising Architect.

**TREASURY DEPARTMENT.** Office of the Supervising Architect, Washington, D. C., August 7, 1912. Sealed proposals will be received at this office until 3 o'clock P. M. on the 18th day of September, 1912, and then opened, for the construction, complete (including plumbing, gaspiping, heating apparatus, electric conduit and wiring, and lighting fixtures), of the United States postoffice at Livingston, Mont. The building is two stories and basement, with a ground area of approximately 4850 square feet. Fireproof construction; stone and stucco facing; tin roof. Drawings and specifications may be obtained from the custodian of site at Livingston, Mont., or at this office, at the discretion of the Supervising Architect. OSCAR WENDE-ROTH, Supervising Architect.

**GOVERNORS ISLAND, N. Y. H., Aug. 1, 1912.** Sealed proposals, in triplicate, for furnishing, commencing Oct. 1, 1912, Forage and Straw required in Eastern Division, during year ending June 30, 1913, will be received here until 10 A. M. Aug. 30, 1912. Information furnished on application Chief Quartermaster.

## BOND OFFERINGS

### \$95,000 5% Bonds

Cordele, Ga.  
Sealed bids for the purchase of the following issue of bonds will be received by the Mayor and City Council of Cordele up to twelve o'clock noon of August 21, 1912:  
\$40,000 of Paving and Street Improvement Bonds, maturing in thirty years from date of issue, bearing interest at five per cent. per annum.  
\$10,000 of Water-works Improvement and Extension Bonds, maturing in thirty years from date of issue, bearing interest at five per cent. per annum.  
\$10,000 of School Improvement Bonds, maturing in thirty years from date of issue, bearing interest at five per cent. per annum.  
\$15,000 of Sewerage Extension Bonds, maturing in thirty years from date of issue, bearing interest at five per cent. per annum.  
All of said bonds to be issued in denominations of \$1000 each.  
A certified check in the sum of five hundred (\$500) dollars must accompany each and all bids, which must be filed with the Clerk and Treasurer of the City of Cordele. The Mayor and City Council of Cordele reserves the right to reject any and all bids.

### \$25,000 5% Bonds

Talladega, Ala., July 24, 1912.  
Notice is hereby given that the City of Talladega, Talladega county, Alabama, will, up to the 10th day of August, 1912, at 6 o'clock P. M., receive bids for the sale of Municipal Street Improvement Bonds in the amount of \$25,000, or in such proportion as may be necessary to be sold. Said bonds are 50 in number, of \$500 each, maturing in 30 years, and bearing interest at the rate of 5 per cent. per annum, payable semi-annually.  
The parties desiring to bid will file their sealed bids with the City Clerk, together with a certified check for \$250, drawn in favor of the Commissioner of Finance of the City of Talladega, Ala., as a guarantee that the buyer will purchase and pay for said bonds, and no bid will be entertained at less than par, together with accrued interest to date of delivery.  
The Board of Commissioners reserve the right to reject any or all bids.  
By order of the Board of Commissioners of the City of Talladega, Ala.

A. G. WELDON,  
City Clerk.

### \$100,000 Twenty-Year 5% Vicksburg (Miss.), Street Im- provement Bonds For Sale

Interest payable semi-annually.

Principal and interest payable in Vicksburg, or at the American Exchange National Bank, New York city, at the option of the holder.  
Date of issue, August 1, 1912.  
Payable serially as follows: \$500 each year for nineteen years; the remainder, \$90,500, on August 1, 1932.  
Date of sale, Monday, August 19, 1912.

Sealed proposals for the purchase of said bonds should be addressed to A. M. Paxton, City Clerk, Vicksburg, Miss., accompanied by a certified check of an incorporated bank for \$5000, payable to said City Clerk. Such proposals will be received up to 8 o'clock P. M. on Monday, August 19, 1912, when all bids will be opened in the presence of the Mayor and Aldermen.

J. J. HAYES, Mayor,  
Vicksburg, Miss.

### \$835,000.00 City of Norfolk, Virginia

THIRTY-FOUR AND ONE-HALF PER CENT. (44½%) BONDS OF \$1000 EACH,  
DATED SEPTEMBER 1, 1912,  
INTEREST PAYABLE MARCH 1 AND SEPTEMBER 1.

Sealed proposals will be received at the office of the City Treasurer of Norfolk, Virginia, until 12 o'clock M. Thursday, September 12, 1912, for \$835,000 four and one-half per cent. (4½%) thirty (30) year coupon bonds, issued for the following purposes:  
Appropriation Bonds.....\$345,000.00  
Park Place Ward School Bonds..... 20,000.00  
Ninth Ward Improvement Bonds:  
Series A..... 8,000.00  
Series B..... 248,000.00  
Tenth Ward Improvement Bonds..... 214,000.00  
Total.....\$835,000.00

Bids may be for the whole or part of the said bonds, and must state price and accrued interest.  
Bonds issued in denominations of \$1000.  
Bonds and interest payable in Norfolk.  
All bonds to be issued as coupon bonds, but purchasers to have privilege of having same registered.

Bids must be marked "Proposals for Bonds."  
Bidders to enclose check for one per cent. (1%) of the par value of the amount bid for, immediately upon notification of allotment a further deposit of four per cent. (4%) of par value of amount allotted shall be made.

Four and one-half per cent. (4½%) interest will be allowed successful bidders on the five per cent. (5%) paid in from time of receipt of the four per cent. (4%) until bonds are ready to be delivered.

It is proposed to deliver the bonds to the purchasers as of the date of sale, but if for any reason any delivery should be delayed beyond that date, the purchaser will be required to pay accrued interest to the time of delivery. The remainder of the purchase money to be paid immediately after the purchasers are notified that bonds are ready for delivery.

The bonds shall be delivered and paid for in the City of Norfolk.  
Checks to be drawn on some State or national Bank, certified and made payable to order of B. Gray Tunstall, City Treasurer of the city of Norfolk, Va.

Circular containing full information will be forwarded upon request to the City Clerk. The right is reserved to reject any or all bids, and also (unless otherwise expressly stated in the bid) to allot any portion of the amount of bonds bid for.

THE FINANCE COMMITTEE,  
JNO. N. SEIBEL, JR., Chairman,  
THOS. H. WILLCOX, Chairman,  
From the Board of Aldermen.  
Teste: R. E. STEED, City Clerk.

### School Building Bonds For Sale

\$20,000 6 per cent. twenty-year school bonds for sale, in denominations of \$500 each, of Blackville, S. C., School District No. 13. No other indebtedness in said district.  
Taxable property in said district about three-quarter million dollars.  
Bonds are voted and issued by authority of an act of Legislature for school-building purposes. Bids for these bonds will be received until October 1, 1912, and all rights reserved to reject any and all bids if not satisfactory. Interest on bonds payable annually.

S. R. BOYLSTON,  
Sec. Board School Trustees,  
Blackville, S. C.

August 3, 1912.

### Notice for the Sale of Municipal Bonds of the Town of Saint George, South Carolina

Notice is hereby given that the undersigned will receive and open sealed bids for the sale of eighteen thousand dollars municipal bonds of the Town of St. George, at the law offices of Walker S. Utsey, Esq., attorney at law, in the Town of St. George, Dorchester county, South Carolina, on the 22d day of August, A. D. 1912, at twelve o'clock noon.

These bonds are issued by the Town of St. George for the purpose of building and equipping a water-works system for the said town, and bear interest at five per centum, payable semi-annually, and are to run for a period of forty years, with the privilege to redeem in twenty years from the date of issue. They bear date of May 7, 1912. All bids are to be accompanied with a certified check for five hundred dollars, and must be addressed to I. S. Hutto, Secretary Board of Commissioners, St. George, South Carolina. Certified checks are to be drawn to the order of the Board of Commissioners of Public Works of St. George.

Bonds are issued in denominations of five hundred dollars each, and the payment of the interest and principal shall be made at such bank or trust company as may be agreed upon.

The Board reserves to themselves the right to reject any and all bids.

P. M. JUDY,  
J. H. WHITSELL,  
J. OLIN HORNE,  
Board of Commissioners Public Works  
of the Town of St. George,  
St. George, S. C., July 18, 1912.

### \$1,025,000 City of Dallas, 4½% Gold Coupon Bonds

TO BE SOLD WEDNESDAY, AUG. 21, 1912.  
Sealed bids will be received by the City of Dallas, Texas, until 12 o'clock noon Wednesday, August 21, for \$1,025,000 4½ per cent. gold bonds.

The bonds are issued by the City of Dallas, Dallas County, Texas, under authority of Article 918-D of the General Laws of the State of Texas, and of the City Charter, and by special authority of the vote of the people at an election held April 2, 1912, and are in the respective amounts and for the respective purposes as follows:

\$200,000 City Hall Building Bonds, dated May 1, 1912, and maturing May 1, 1952.  
\$400,000 Water-works Improvement Bonds, dated May 1, 1912, and maturing May 1, 1952.  
\$125,000 Fire Station Building Bonds, dated May 1, 1912, and maturing serially, beginning May 1, 1913, \$3000 each year, with \$4000 maturing each eighth year, for forty years—average time, 20½ years.

\$200,000 Public School Building Bonds, dated May 1, 1912, and maturing serially, beginning May 1, 1913, \$5000 each year for forty years—average time, 20½ years.  
\$100,000 Sanitary Sewer Bonds, dated May 1, 1912, and maturing serially, beginning May 1, 1913, \$2000 and \$3000 each alternate year, for forty years—average time, 20½ years.

The bonds are in the denomination of \$1000 each. Interest is payable semi-annually on November 1 and May 1; both principal and semi-annual interest payable in gold coin at the Chase National Bank in the city of New York.

Direct tax levies have been made sufficient in amount to provide interest and the required sinking fund to retire the bonds as they mature.

The bonds are engraved under the supervision of and certified as to genuineness by the Dallas Trust and Savings Bank of Dallas, Texas. They have been approved by the Attorney-General of the State, registered by the State Comptroller, and the opinion of Messrs. Dillon, Thomson & Clay of New York, together with a full transcript of all proceedings had relative to the bonds, will be furnished to the purchaser.

The City of Dallas has been incorporated by special charter for a period of more than thirty years, and at no time in its history has there been any default in the payment of any interest or principal on its bonded debt or otherwise.

A certified check for 2 per cent. of the face value of the bonds bid for, payable to W. T. Henderson, Commissioner of Finance and Revenue, must accompany each bid. Money to be paid and bonds to be delivered at Dallas.

The City of Dallas reserves the right to reject any or all bids.

W. T. HENDERSON,  
Commissioner of Finance and Revenue,  
Dallas, Texas.

## Bonds

Wanted—To sell \$25,000 Blackville, South Carolina, 5 per cent. Municipal Bonds. Bids received up to 12 o'clock M. September 10, 1912. Rights reserved to reject any or all bids.

W. A. GYLES,  
Clerk and Treas. Town Council.

## SEWERS, WATER-WORKS AND ELECTRIC LIGHT PLANTS

### Proposals for Water Pipe and Specials and Laying

Department Public Works,  
Augusta, Ga., August 1, 1912.

Sealed proposals addressed to the City Council of Augusta, Ga., will be received by the Water-works Committee until 4 P. M. Wednesday, August 14, 1912, for furnishing pipe and specials and laying on various streets in Augusta, Ga., approximately 450 linear feet 10-inch pipe, 9000 linear feet 8-inch pipe, 10,500 linear feet 6-inch pipe. Plans and specifications may be had by applying at this office.

Cash or a certified check for \$200 must accompany each bid as a guarantee of good faith. The city reserves the right to reject any or all bids.

NISBET WINGFIELD,  
City Engr and Contr. Pub. Wks.

### Water-Works, Sewerage and Water Purification System

Morgan City, La.

Sealed proposals will be received by Hon. M. D. Shannon, Mayor, Morgan City, La., until August 14, 1912, at 2 P. M., for the furnishing of all material and labor for a complete Water-works, Sewerage and Water Purification System in accordance with plans and specifications on file in the office of the Mayor.

Copies of the specifications will be furnished without charge on application to Xavier A. Kramer, Consulting Engineer, Magnolia, Miss.

Plans will be furnished upon deposit of certified check for \$25 to guarantee their safe return. Usual rights reserved.

A. B. O'BRIEN, Secretary.

### Water Purification Plant

Bids will be received at the office of the City Secretary, Dallas, Texas, until Monday, August 26, 1912, 2 P. M., for building and constructing a Water Purification Plant at Dallas, Texas, on the site known as the Turtle Creek Pumping Station, situated on the switch of the M. & T. Ry., about one and one-half miles from the City Hall.

A deposit of \$20 (twenty dollars) will be required to get a set of plans and specifications. The check for \$20 will be returned to bidders upon return of plans and specifications in good condition. Each bid must be accompanied with a certified check of ten thousand dollars, payable to the City of Dallas, said checks to be returned to the unsuccessful bidders upon the award of contract, and to the successful bidder after the contract and bond is executed and accepted by the City of Dallas. Bidder's bond will not be accepted in lieu of certified check. A bond for fifty per cent. of contract price must be furnished by the successful bidder, executed by an approved surety company, and by a resident of Dallas county, Texas.

The City of Dallas will assume all liability for patent infringements.

Contract will incorporate eight-hour provision of the City Charter.

Plans and specifications can be secured at the office of Jas. H. Fuertes, 140 Nassau St., New York, or at the office of the City Secretary, Dallas, Texas.

All bids must be addressed to J. B. Winslett, City Secretary, Dallas, Texas. Mark all envelopes "Bids on Water Purification Plant." The City of Dallas reserves the right to reject any or all bids.

## BUILDINGS

### Jail Building

Bids in duplicate will be received by the undersigned until 11 A. M. on the 12th day of August, 1912, for the construction of a new jail building on the site of the present one in Galveston county in accordance with plans and specifications on file. Copies of specifications can be had on application to the County Auditor, and plans can be had from Lee Desjardins, Architect, Galveston, and all applications for such plans from outside of Galveston must be accompanied with a bank draft for \$15, to be forfeited to the architect if plans are not returned on opening of bids. All bids must be made on forms attached to the specifications and must be accompanied with a certified check on any bank in Galveston for the sum of \$1750, to be forfeited as liquidated damages should the successful contractor not enter into contract within 10 days after awarding of contract. The County Commissioners' Court reserves the right to reject any or all bids, which must be addressed to the undersigned and marked "Bids for Construction of County Jail."

JOHN M. MURCH,  
County Auditor,  
Galveston, Texas, July 18, 1912.



# PROPOSALS

SEWERS

WATER-WORKS

ELECTRIC LIGHT PLANTS

BRIDGES

## Remodeling Jail Building

### NOTICE TO CONTRACTORS.

Houston, Texas.  
Sealed bids will be received for remodeling of the three-story and basement jail building for Harris county, Texas, and bids to be filed with the County Auditor on or before 12 o'clock noon Monday, the 12th day of August, 1912, and all bids not received will be opened immediately thereafter.

The work on this building to be let in four separate and distinct parts—  
General Work; Plumbing, Sewering and Gasfitting; Steam Blast Heating and Ventilating System; and Cell Work.

All bids to be submitted on blank form as attached to the specifications, and alternate bids to be submitted on using part toolproof and part Bessemer steel as per specifications, and also on using all Bessemer steel in the construction of the cells.

Plans and specifications can be seen at the office of the County Clerk or at the office of the Architect, O. J. Lorenz, 616 Carter Bldg. Each bidder for general work will be required to enclose with his bid a certified check for the sum of ten per cent. of the full amount of his bid, and each bidder for the remainder of work to enclose with their proposals a certified check for the sum of twenty per cent., and all to be drawn in favor of A. E. Amerman, County Judge of Harris county, Texas, and to be held as liquidated damages in case the successful bidder fails to make bond as per specifications.

The Commissioners' Court reserves the right to reject any and all bids.

Endorse "Bid for Remodeling Jail" and address to John B. Ashe, County Auditor.

### BRIDGES

## Notice to Bridge Builders

Notice is hereby given that the undersigned will receive bids by public outcry at 10 o'clock A. M. on the 30th day of August, 1912, at the front door of the Courthouse of Little River, in the city of Ashdown, for furnishing all material of every kind and character, and the erection, complete, of a bridge over Little River between Little River and Sevier counties, at Mills Ferry on said river.

Said bridge to be built according to the plans and specifications adopted by the Commissioners for said bridge and approved by the County Courts of said counties, and on file in said counties. Copies of plans and specifications can be obtained at the office of the Engineer, Frank M. Blaisdell, Southern Trust Bldg., Little Rock, Ark. A check for \$10 will be required to accompany application for plans and specifications. Successful bidder to execute bond for the faithful performance of said work, and each bidder to file with the County Court of Little River county a certified check for \$1000, to be forfeited to the counties aforesaid as liquidated damages if he shall be the successful bidder and shall fail to make proper bond and contract within 15 days after said bid is accepted.

The contract to be let to the lowest responsible bidder, and the right is reserved to reject any and all bids.

Witness our hands this 29th day of July, 1912.

N. A. GEORGE,  
County Judge Little River County.

A. L. TRIBBLE,  
County Judge Sevier County.

## Bridges for Madison Parish, Louisiana

The Police Jury of said parish will receive bids on Wednesday, September 4, 1912, for the construction of the following Bridges:

First—Over Willow Bayou on the road leading north from Tallulah, 80-foot span.  
Second—Over Panther Lake on the road leading north from Waverly, 64-foot span.

Third—Over Sut Bayous south of Waverly, 120-foot span.  
Fourth—Over Little Fork south of Waverly.

Said bridges to have concrete abutments and capable of sustaining the weight of a 20-ton traction engine. Roadway, 12 feet.

Right reserved to accept or reject any bid. Engineers to furnish their own plans, one of which to be selected by the Board. Bond or certified check required for a sum fixed by the Board. Bids to be directed to W. H. Harvey, Secretary, Tallulah, La.  
This July 5, 1912.

### PAVING AND GOOD ROADS

## Notice to Paving Contractors

Sealed proposals will be received by the City Commission of the City of Port Arthur, Texas, up to 10 o'clock A. M. Wednesday, August 21, 1912, and then publicly opened in the office of the Commission, for paving Houston avenue from Seventh street to Procter street, and Procter street from Houston avenue to Shreveport avenue.

Approximate quantities as follows:  
25,372 sq. yds. paving on 5-inch concrete base.  
5,800 cu. yds. excavation—earth and shell.  
2,800 lineal ft. plain concrete gutter.  
4,000 lineal ft. combined concrete gutter and storm sewer.  
1,020 lineal ft. 3"x10" white oak headers.  
12,000 lbs. cast-iron inlet grating.  
1,128 lineal ft. vitrified pipe, 8" to 24".  
20 cu. yds. extra concrete.

Specifications call for wearing surface of Vitrified Brick, Texas Sheet Asphalt, Creso-

sot Wood Blocks, Asphaltic Concrete or Natural Rock Asphalt. Payments in cash. Certified check for five thousand (\$5000) dollars must accompany bid as evidence of good faith. Complete plans and specifications are on file in the office of City Clerk, where copies may be obtained upon deposit of \$5, which deposit will be refunded upon return of plans before August 25, 1912.

City Commission reserves the right to reject any or all bids or to waive irregularities.

L. D. HECKMAN,  
City Clerk.

## Highway Construction

STATE OF MARYLAND,  
STATE ROADS COMMISSION,  
531 N. Howard St.,  
Baltimore, Md.

### NOTICE TO CONTRACTORS.

Sealed proposals for building 10 sections of State Highway, aggregating about 23.66 miles in length, as follows:

Baltimore County.—One section along the Baltimore-Washington Boulevard, from the B. & O. R. R. crossing at Morrell Park southerly for a distance of about 1.50 miles (Pitch Macadam).

Charles County.—One section along the road from Pockinsville to Rock Point, about 4.75 miles in length (Concrete roadbed with Bituminous wearing surface).

Dorchester County.—One section along the Hurlock-Shiloh Church road, about 1.42 miles in length (Macadam).

One section along the Cambridge-Mt. Holly road, about 3.05 miles in length (Stone surfacing).

Kent County.—One section along the Kennedyville-Leonard Grove road, about 1.29 miles in length (Macadam).

Prince George's County.—One section along the Baltimore-Washington Boulevard from Main street, Laurel, to Crow Run, about 0.62 miles in length (Pitch Macadam).

Queen Anne's County.—One section along the Centerville-Wye Mills road, about 2.50 miles in length (Macadam).

One section along the Centerville-Wye Mills road, about 4.99 miles in length (Macadam).

Talbot County.—One section along the Easton-Wye Mills road, about 1.44 miles in length (Macadam).

Wicomico and Dorchester Counties.—Approaches to the Nantuxcoke Bridge between Wicomico and Dorchester counties, at Sharptown.

Will be received by the State Roads Commission at its office, 234 N. Howard street, Baltimore, Md., until 12 M. on the 14th day of August, 1912, at which time and place they will be publicly opened and read.

Bids must be made upon the blank form contained in the book of specifications, which will be furnished by the Commission upon application and payment of \$2 for each section. Blueprints of each section will be furnished at the rate of 25 cents for each half mile.

No bids will be received unless accompanied by a certified check for the sum of five hundred (\$500) dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contractors.

The Commission reserves the right to reject any and all bids.

By order of the State Roads Commission this 29th day of July, 1912.

O. E. WELLER,  
Chairman.

WM. L. MARCY,  
Secretary.

### MISCELLANEOUS

## Notice to Architects

Competitive plans and specifications will be received by the City Council of the City of Beaumont for a municipal abattoir, including brick or concrete slaughter-house, cooling rooms, reduction plant, fertilizer room. Also all tools, machinery and implements necessary to complete same ready for use. The cost not to exceed the sum of \$22,500.

Said plans and specifications, etc., to be filed with me not later than Tuesday, September 3, 10 A. M., and addressed to J. G. Sutton, City Secretary, and marked "Plans for City Abattoir."

The city reserves the right to reject any or all plans submitted.

J. G. SUTTON, City Secretary,  
Beaumont, Texas.

## Drainage

Notice.—Bids for the construction of a drainage canal and subsidiary ditching in Butts Road Drainage District No. 1, Norfolk County, will be opened at 11 A. M. on Saturday, August 10, 1912, at the office of the Treasurer of Norfolk County, Portsmouth, Virginia.

Plans and specifications for this work can be obtained from the County Treasurer. Length of canal about four miles. Bottom width eighteen feet. The right is reserved to reject any and all bids.

THE BOARD OF DRAINAGE COMMISSIONERS OF BUTTS ROAD MAGISTERIAL DISTRICT NO. 1 OF NORFOLK COUNTY.

Information concerning this work can be obtained from Old, Brockenbrough & Webster, attorneys, Norfolk, Va.  
By R. R. Randolph, Chairman.

## Bids Wanted on Fire Department Equipment

Waco, Texas, July 31, 1912.

The City of Waco will receive bids on the 16th day of August, 1912, for—

One combination auto-driven pumper and hose wagon and one fire chief's auto. Specifications must accompany each bid.  
THOS. A. CAUFIELD,  
Commissioner of Finance.

## Vacuum Sweeping System

East Radford, Va.

Bids will be received at East Radford, Va., until August 19, 1912, for a vacuum sweeping system for the Administration Building, State Normal and Industrial School for Women.

The building is now in course of construction. J. C. Curtis, Denbigh, Va., contractor. For full information write Chas. M. Robinson, Inc., Architect, Richmond, Va.

W. T. BALDWIN,  
Chm. Building Committee.

## Grading, Draining and Construction of Concrete Retaining Walls

### NOTICE TO CONTRACTORS.

Sealed proposals for the grading, draining and construction of concrete retaining walls for the East Trade St. Underpass will be received by the Executive Board of the City of Charlotte up to three o'clock P. M. of the seventeenth day of August, 1912, and will be opened on the nineteenth day of August, 1912.

Plans may be seen and specifications obtained at the office of the City Engineer.

The right is reserved to reject any or all bids or any part of a bid.

A. H. WEARN,  
City Clerk and Treas.

JOSEPH FIRTH,  
City Engineer.

## Ditch and Levee Work

### NOTICE TO CONTRACTORS.

Little Rock, Arkansas.  
Sealed bids will be received until three o'clock P. M. Tuesday, August 20, 1912, in

the Chamber of Commerce, Little Rock, Arkansas, for the excavation of the Main Canal of Fourche Drainage District, the construction of levees along same, and concrete culverts, as follows:

### Contracts Numbers 5, 6 and 7.

Main Canal—Length 8 miles, base 86 ft., slopes 2 to 1, maximum depth 22 ft., contains 1,115,000 cu. yds. Secondary Canal—Length 6 miles, base 30 ft., slopes 1 to 1, maximum depth 23 ft., contains 687,000 cu. yds. North Levee—Length 8 miles, crown 34 ft., maximum height 22 ft., contains 723,400 cu. yds. South Levee—Length 8 miles, crown 6 ft., maximum height 22 ft., contains 435,600 cu. yds. The above canals and levees are parallel to each other, and the material from the canals is to be used in the levees.

### Contract Number 8, Reinforced Concrete Culverts.

1 box culvert, length 624 ft., 8 ft. by 10 ft., contains 1750 cu. yds. 1 box culvert, length 509 ft., 5 ft. by 6 ft., contains 509 cu. yds.

### Contract Number 9, Dredge Ditches.

Main Canal—Length 6½ miles, top width 20 ft., contains 155,000 cu. yds. Lateral Ditches—Total length 6 miles, top width 12 to 18 ft., contain 115,000 cu. yds.

Contracts Numbers 5, 6, 7 and 8 are located within two miles of Little Rock Arkansas; Contract Number 9, from 5 to 12 miles from Little Rock.

Each bid must be accompanied by a bidder's bond or certified check in the sum of five per cent. of the amount of the bid, made payable to W. E. Leuen, Secretary of Fourche Drainage District, as a guarantee that if the bid is accepted a contract and bond will be entered into within twenty (20) days from the acceptance of same, for the faithful execution of the contract. The bond for the contract will be in a sum of twice the amount of the contract, as is required by the State Statutes, and must be made by a surety company authorized by the State of Arkansas.

Plans may be seen and specifications and blank forms of proposal, which must be used, may be procured at the office of the engineers. Maps, plans and profiles may be obtained from the engineers on payment of \$3 to cover the cost.

The right is reserved to reject any or all bids or to accept any part of any bid which the board may deem advisable.

### FOURCHE DRAINAGE DISTRICT.

W. M. Kavanagh, President.

Warren E. Leuen, Secretary.

LUND & HILL, Engineers.

201½ West Second St., Little Rock, Arkansas.

# MARSH-CAPRON CONCRETE MIXERS



Have all improvements of other mixers, and "then some"

There are many mixers on the market, and some good ones. Each has one or more special improvements or selling points. All of these improvements are incorporated in the "MC" Mixers, and there are many other special improvements found only in the "MC."

For instance, the Rail-Track Trunnions of the "MC" Mixers are made of rolled steel rails, the kind used by railroads the world over, and insure smooth and constant running.

Marsh-Capron Mixers are everywhere—look one up near you and see how satisfactorily it works.

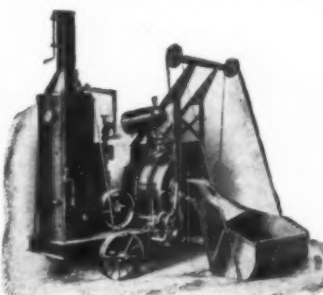
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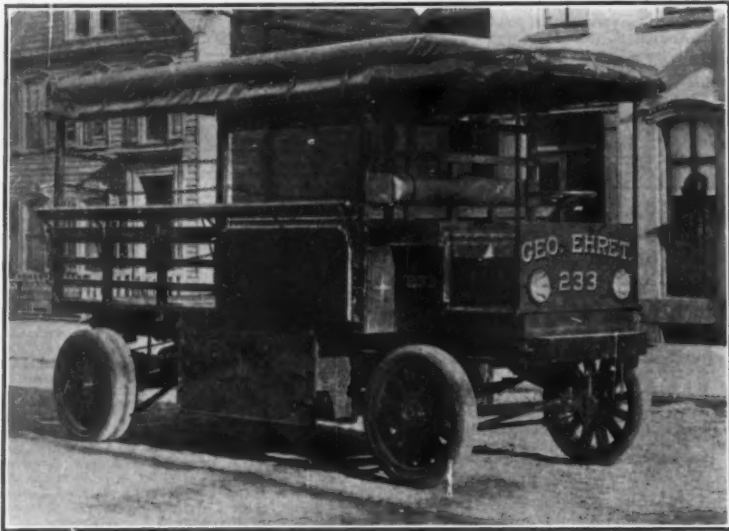
Marsh-Capron Rail-Track Mixer with Side Loader Grounded.

## MOTOR VEHICLES AND TRACTORS

### The New Lansden Electric Truck.

After a period of eight successful years the Lansden Truck now has many new mechanical features and improvements. The Lansden Company has undergone a complete reorganization. Its officers and directors are practical men of mechanical ability, including motor-truck engineers, builders, and electrical experts. Every officer on the staff will be readily identified by a long term of efficient service in a high capacity with the foremost motor-truck companies. With the experience and skill gained by years of study, experiment and building of commercial cars, the new organization, known as the Lansden Company, is now producing an electric truck which has created a large demand and is selling as rapidly as the

ton capacity to be practical in some respects. The engineering department of the Lansden Company is ready and willing to advance all information in its power to any prospective truck buyer who writes for it. The company is issuing specification bulletins showing illustrations of the various models of cars, with full specifications as to size, construction and possibilities of haulage, operation, etc., and is also working on a catalogue which will deal minutely with the Lansden trucks. The book will be well illustrated with trucks of various types, and will contain much valuable information to prospective buyers of commercial electric cars. All persons who may be interested in improving their delivery equipment and at the same time reducing cost of operation and



LANSDEN ELECTRIC TRUCK.

plant can manufacture it, and orders are also received for future deliveries. Since the first of the year the Lansden Company has booked orders for upwards of 300 trucks in large and small-load capacities. As to efficiency of service, low cost of operation and maintenance the Lansden Company refers to any of the following firms: Aitken, Son & Co. have 8, six years in service; R. H. Macy & Co. have 18, three years in service; Gimbel Bros., New York, have 12, two years in service; Abraham & Straus have 20, three years in service; A. A. Vantine & Co. have 8, six years in service, and the Adams Express Co. has 153, eight years in service. The company also refers to many other concerns of equal rank. Mr. Case, the general manager of the company, at the time of the moving of the factory equipment from High St. to the newly acquired plant, 394 Frelinghuysen Ave., Newark, N. J., was very enthusiastic in speaking of the future outlook for the new company with its large number of orders on file, some of which are for shipments on repeat orders. In the course of the next few weeks the complete removal will have been made, when the company will be in a position to execute its orders with great efficiency. The new plant will be equipped with the newest and most modern time and labor saving machinery for producing the Lansden truck. It will be recalled by those in a position to know that the Lansden under the old management was built with wooden frame, with the batteries accessible only through the floor of the car. The company engineer has now perfected a sliding tray containing the batteries, mounted on roller bearings, which are run out on either side of the car by a mere push of the hand. There are many other equally advantageous features introduced in the construction and mechanical equipment of the new Lansden truck. The cars are equipped with newest improved Edison storage batteries. The model is designed along graceful and trim lines, with nothing awkward or clumsy in the appearance. The Lansden Company builds cars of various types and capacities for all lines of trade requiring light or heavy haulage facilities. The truck illustrated is one of the new type of trucks for the general trade, of which they have already sold a large number to leading firms in Newark, N. J.; New York, Jersey City, Philadelphia and other cities. The type shown is of three-ton capacity, but the same type of truck is furnished in one-ton, two-ton, four-ton and five-ton sizes. Mr. Case does not consider a truck larger than five-

ton capacity should write for a copy of the Lansden catalogue, which will be sent as soon as it comes off the press. Announcement of the completion of the catalogue will appear in these columns and also in the company's advertisement. Attention is called to its advertisement in this issue. The company states that it will further the selling interests of the Lansden commercial cars by a campaign of effective advertising in conjunction with a staff of experienced "live-wire" salesmen.

### Foreign Markets for Motor Vehicles.

The great strides that the motor-vehicle manufacturers of the United States are annually making in extending their products to foreign markets are shown in a monograph just issued by the Bureau of Manufactures, Department of Commerce and Labor, under the supervision of A. H. Baldwin, chief of the bureau. This monograph is entitled "Foreign Markets for Motor Vehicles." It is a compilation of reports from American consuls arranged with the particular end in view of aiding American manufacturers to extend their foreign sales. The peculiarities of the various markets are described and the special local conditions and prejudices to be considered are noted, together with the foreign competition to be met. Recommendations as to the best methods of selling cars are included. A comparative statement of the relative demands of various countries for American cars is given. It is stated that the method of American dealers of putting their cars on the market fully equipped is in strong contrast with the practice of Continental makers, who quote prices on the chassis only, with the body and all equipment listed as extra.

### The Webb Motor Fire Apparatus Co.

A large amount of the capital stock of the Webb Motor Fire Apparatus Co. of St. Louis has been sold to Eastern capitalists under the leadership of John M. Mack, who has recently severed his connection with the International Motor Co. He will take an active interest in the affairs of the Webb Company as treasurer. The company plans to move its factory early in September from St. Louis to Allentown, Pa., where it has secured a \$250,000 plant fully equipped with modern machinery. It is estimated that at least 250 pieces of fire-fighting apparatus will be turned out during 1913. Under the reorganization the following are the officers: A. C. Webb, president; George E. Blakeslee, vice-president; John M. Mack, treasurer;

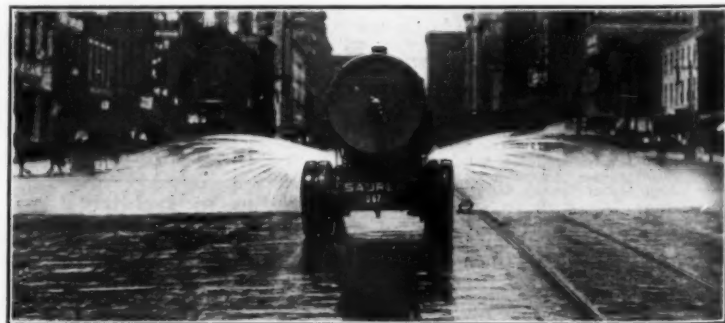
W. J. W. Groves, secretary. The general sales office has been established in the United States Rubber Bldg., Broadway and 58th St., New York, and will be in charge of M. B. Strauss. Branches and agencies have been established in many cities, including Atlanta, Ga.; Dallas, Tex., and Kansas City, Mo. Besides the establishment of these agencies, a large sales force has been put in the field. All new orders now received are being filled in the Allentown plant, and for the present both the plant at Allentown and St. Louis will be working to full capacity. The name of the company has been changed to the Webb Company.

### Weaver Automobile Twin-Jacks.

A folder issued by the Weaver Manufacturing Co., Springfield, Ill., contains illustrations and descriptions of the Weaver automobile twin-jacks for use in lifting motor cars clear of the floor to relieve the pneumatic tires or for other purposes, such as removing the wheels, making repairs, etc. The twin-jacks are mounted on a frame supported by three wheels, each jack lifting the axle at a convenient point so that the two wheels are lifted from the floor at the same time. A cog gearing turned by a hand crank operates the screw of the lifting jack. It is stated that this equipment combines the advantages of the single jack and the ordinary truck which is used in moving automobiles from one point to another clear of the floor. It is designed to meet the conditions which exist in garages and repair shops. By its use a car can be placed in any position in a garage at a great saving in time and labor. It enables the cars to be placed in close formation without the maneuvering that would otherwise be necessary. A car can be turned completely around within its own length when mounted on a set of twin-jacks. It is claimed that a pair of these jacks will save their cost in tires each year. The car can be raised clear of the floor in a few seconds without inconvenience or soiling the clothes. By raising both wheels the brakes can be conveniently and accurately tested to see if they brake uniformly, so as to prevent danger of skidding. This folder will be sent to interested persons on request.

### Economy of Motor Sprinkling Apparatus.

The accompanying illustration shows the Saurer motor street sprinkler, which has recently been sold to the Wm. R. Bush Construction Co., St. Louis, for sprinkling the streets of that city and roads in the vicinity. This machine sprinkles a surface from 60 to 50 feet in width, regulated as may be desired. It offers some interesting, practical and exclusive points of design in the development of apparatus for municipal use. This St. Louis motor sprinkler is built on a 6½-ton standard Saurer chassis, the water tank having a capacity of 1400 gallons. It is double riveted with longitudinal and trans-



MOTOR SPRINKLER OF INTERNATIONAL MOTOR CO.

verse seams, and is fitted with three baffle plates and four baffle angles so placed as to prevent any circular motion of water. The pump equipment consists of a Goulds fire pump, manufactured by the Goulds Manufacturing Co., Syracuse, N. Y., with a capacity of 400 gallons per minute against a pressure of 30 pounds of the pump circuit and 10 to 12 pounds at the nozzle. The pump is geared at 400 revolutions per minute at a truck speed of six miles per hour, which gives a water distribution of one gallon per 45 square feet. Control of the sprinkler is effected by two levers, lever No. 1 throwing in and out of gear a jaw clutch operating the pump from a driving sprocket secured to a differential housing. Lever No. 2 operates on an interlocking quadrant independently and together, the gate valves governing the two nozzles. The nozzles are easily adjusted to the full limit of useful nozzle pressure, in addition to an adjustment by a single ring

nut, which permits the throw of the water from the nozzles to be regulated for varying widths of streets. When the two gate valves leading to the nozzles are closed, pressure is obtained by an adjustable by-pass valve on a closed pump circuit. This pressure can be varied from 0 to 50 pounds pressure per square inch. The tank is equipped with a 10-foot hose, fitted with a standard hydrant connection at its end. This hose is connected to an automatic spring pressure check valve, which permits the filling of the tank, and when full automatically closes, thus necessitating no attention from the operator other than that of disconnecting the hose from the hydrant. A ball float is fitted to the top of the tank, in addition to a small manhole, which permits the operator to judge the height of water in tank. The Saurer trucks are manufactured by the International Motor Co., Broadway and 58th St., New York.

### Roll-O Punctureless Tires.

Roll-O is a compound which in appearance resembles black rubber and is made under a secret process. It is stated that it is more resilient than black rubber, but, in fact, contains no rubber at all. It is manufactured by Tennille & Helms, Dothan, Ala., and is used to fill automobile tires. The Alabama Airless Tire Co., with main office at Dothan, plans to install plants in many cities for the purpose of extending the use of this tire filler. One plant has already been established at Dothan, and it is the intention of the company to install plants at Troy, Montgomery, Selma, Andalusia and Opelika in the near future. In applying this filler it is forced into the inner tube through the air valve while in a warm liquid state and at the same pressure at which the tires would be inflated with air. It is then cooled slowly and congeals as it cools. It is claimed that it is not affected by any degree of cold or heat to which it may be subjected in use and that its resiliency is not lessened in any degree from being kept under pressure. It is also stated that no difference is noted in the riding, running or steering a car on which the tires used are filled with "Roll-O" as compared with the same tires filled with air. No matter how much the casing is injured, the resiliency of the filling remains the same, and as for blow-outs, they cannot occur with this filler. Roll-O does not wear out, but when the casing is worn out it can be taken off, and the inner tube, which contains the filler, may be used with a new casing. A pamphlet describing the use of this filler and containing a price-list has been published by Tennille & Helms, and will be sent on request to interested persons.

### International Motor Co.'s "Service."

A motor-truck manufacturer can give four kinds of service to a business man who comes to him for advice on transportation problems. As stated by R. W. Hutchinson,

Jr., M.E., of the International Company, these are as follows: 1. Long life: He can sell him a truck that has proved profitable long life by years of consistent good service. 2. Right sizes: He can help him choose the right size of truck and style of body for each different requirement of his business. 3. Operating instruction: He can instruct the man who is going to run the truck in how to operate it most economically and how to give it every-day care. 4. Keeping in order: He can provide the "service stations" where the owner will be sure of getting materials and workmanship of factory standard with the same personal attention after he has bought his truck as when he was only a "prospect." The International Motor Company, Broadway and 58th St., New York, is establishing at all its branches an inspection system of trucks which is helpful in the following ways to holders of International Motor Co. vehicles: 1. Inspectors keep in



close personal contact with drivers and instruct them in regard to proper operation and care of trucks. 2. Inspectors show the drivers as thoroughly in regard to the details of the mechanism of truck as possible, emphasizing and constantly impressing on them the fact that good care means efficiency in operation. 3. Inspectors suggest the necessary repairs, anticipate the breaking down of trucks before this trouble actually occurs, and impress upon the driver and owner the necessity of making small repairs before anything serious happens. 4. The inspectors impress upon the man at the wheel that if he will take this kind of care of International trucks, the company will do all it can to help him advance himself and make an incentive for the man who shows a conscientious interest in the truck he drives to help him to earn more money through the increased earning power of the truck gained by this personal attention. For the customer the International Motor Co. is doing a great deal to bring about that education in the use of motor trucks which is lacking and which causes a large part of the complaints from motor-truck transportation. By tactful reminder and concrete example this company is endeavoring to advise him when his truck is overloaded, and trying to have him see that it is not to his advantage to do this, neither is it to his advantage to run the truck at too high a speed. Again, the International Motor Co. is making an effort to have its customers know whether they have the right men as drivers for their trucks, and by concrete illustrations impress upon the customer the fact that a large business machine as valuable as a motor truck must be properly taken care of, and that the man who drives it or takes charge of it must have proper consideration in order to arouse his enthusiasm and to secure the proper results. In many instances the company sends its drivers out to take charge of the truck when a fault has developed from overloading or overspeed, and sometimes the company goes so far as to take the load off and actually deliver it to a customer. In other words, the International Motor Co. is trying to establish efficient service, but not agreeing or promising to do things that, from the very nature of the conditions, are unreasonable and impossible merely for the sake of putting the truck in service. The keynote of this policy is the proper education of the customer primarily with the end in view that eventually his confidence will be won, and he will be shown how he can secure the return that he should on his investment. The proper response to this educational policy on service is not expected immediately. It takes time to disestablish a long-followed-out custom which has prevailed for many years and is handed down from horse-truck practice. But the response has been very favorable in recent months.

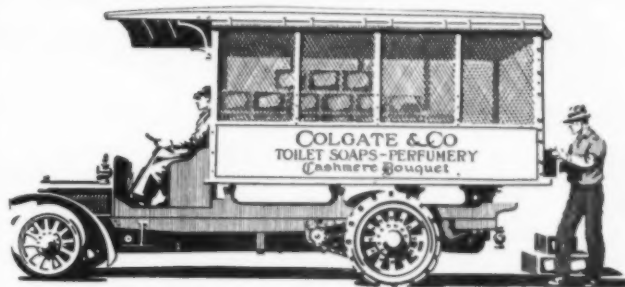
#### Ford Motor Co.'s Assembling Plants.

The Ford Motor Co. of Detroit has found it necessary to adopt a new policy by which the work of assembling cars in the parent plant will be largely aided by the establishment of a series of subfactories or assembling plants in various cities. It is stated that, beginning with the coming season, at least 11 of these new plants, any one of which would make a fair-sized automobile factory in itself, will be in full operation. Before another year is passed it is planned to have a Ford subfactory in practically every large business center of the country. "These plants will only be for assembling, storage and sales purposes, and none of the parts of Ford cars will be made in them," said Henry Ford recently. "We are planning to meet the conditions forced upon us by the demand for Ford cars. We are going to erect a series of substantial buildings, one in practically every large distributing point from coast to coast. The Detroit factory will continue to make Ford cars just as it has in the past, but instead of assembling them all in Detroit, parts will be sent to the branches and many thousands cars put together there. This will give us more room here and will enable us to ship practically three times as many complete automobiles in each freight car as we are now shipping. When one considers that we are now loading at the Detroit factory nearly 200 freight cars a day, some conception can be formed of the saving of both time and money which this new departure will make. When we built our present factory, a little more than three years ago, we were sure it was large enough to meet our needs for several years. But the first year tested its capacity. This year we have nearly doubled its working area, and we have made it a model factory, which has helped to increase

the general efficiency and volume. But, in spite of all that has been done to keep pace with the demand for Ford cars, the increase has been such that we have not been able to supply the demand. We intend to see that this condition is not repeated another season. Not only will this plan relieve us of congestion here and make it practically certain that a man who wants a Ford car can have it within a reasonable time, but it will, to a large measure, relieve us from uncertainties due to weather and other troublesome conditions. In an emergency Ford cars could be produced at one or many plants at the same time. As each of the plants will serve as a great warehouse where many cars can be stored, the uncertainties of rail shipments will be largely overcome, and we will also be able to keep the Detroit factory working at even pace all the year round, storing the winter's surplus with the branches to feed the big spring and summer demand. This will work for an accurate adjustment of distributing conditions and obviate much future trouble in Ford deliveries. But the real satisfying benefit of this plan will be the fact that it will make us substantial property-owners in the communities where we are now represented by branch houses. We will be represented in each community by a substantial investment of some hundreds of thousands of dollars, and our responsibility locally will be even more readily recognized and appreciated than it has been in the past." James Couzens, secretary and treasurer of the Ford Motor Co., has been preparing plans for some months for the execution of this project. "Before we will have carried the plan to its completion," said Mr. Couzens, "an investment of several million dollars will be called for. We shall probably have some 20 or 30 of these assembling plants in full operation before very long. Already the property has been purchased for many of them. In Los Angeles, San Francisco, Portland and Seattle the building plans are already out. Real estate transactions have been privately closed at many points and are rapidly being closed at others. In some of the cities the investment will reach close to a half-million dollars. All of this property the Ford Motor Co. will own, as the entire proposition will be financed from the company's resources. As each assembling plant will employ a considerable number of men, we expect that it will not be long before our disbursements in wages will be nearly double what they are now. It is an interesting fact to note that the amount of money the Ford Motor Co. pays in wages has been multiplied by two nearly every year since its inception. But under this new assembling-plant plan the wage disbursement will be to a substantial extent distributed over the entire country." It is expected that Ford distributing and assembling plants will soon be built in the following cities: St. Louis, Memphis, Seattle, Portland, Los Angeles, San Francisco, Minneapolis, Chicago, Philadelphia, Boston and Denver. Wherever possible the buildings will be not less than five stories in height, and will contain floor space ranging from 100,000 to 250,000 square feet. The smallest one will be larger than the entire Ford factory of eight years ago.

#### United States Steel Sheet Piling.

In issuing the ninth edition of its booklet, "Steel Sheet Piling," the Carnegie Steel Co., Pittsburgh, has incorporated much valuable information concerning the developments made in the methods of constructing steel sheet piling, the operations of driving, pulling, etc., together with tables to facilitate the calculations, estimating, designing, etc., by engineers and contractors. This edition, which has just been issued, contains 88 pages, as compared with 16 pages of the former edition, and contains complete information and data as obtained in the work of this company and from other sources. The sections and weights of the three forms of steel sheet piling manufactured and sold by the Carnegie Steel Co. are shown in the illustrations and tables. These three forms are United States steel sheet piling, Friedstedt interlocking channel bar piling, and Symmetrical interlock channel bar piling. The advantages of each of these forms under different conditions are stated. Illustrations and descriptions of the various pile drivers, hammers and accessory tools are included, and the use of the water jet noted. Various methods of pulling together with the equipment necessary are described. A discussion of lateral earth pressures is given with tables of earth pressures for various weights of soil and angles of the excavations. This booklet will form an important addition to the engineer's technical library.



Colgate & Co. have 21 of our trucks of various load capacities in service in New York City alone.

**Mack Saurer Hewitt**

Proved by 12 years  
of real service

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**"Leading gasoline trucks of the world."**

The *right* truck—right in size and style—saves 30 to 50 per cent of your delivery and dray expenses.

The *wrong* one wastes your money.

We build all sizes and styles—a right one for any use.

Our Engineering Department is at your service.

Send for data on truck service for all manufacturing and industrial concerns.

#### International Motor Company

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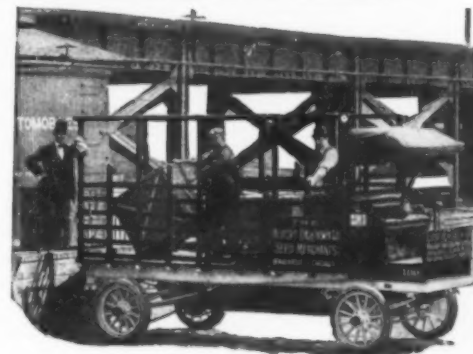
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**E**IGHT years of continuous study, improvement and service establishes for the LANSDEN Commercial vehicles a record of real merit unparalleled by any other make of car. Built by an organization of specialists, making electric wagons exclusively. It is a realization of the highest ideals in electric Commercial car-craft; endorsed in highest terms by the largest and most representative firms in America and abroad in every line of trade for both light and heavy haulage. Repeat orders speak with eloquent emphasis.

The LANSDEN is mechanically perfect in construction—simple in operation and equipped with Edison Storage Batteries. Made in all type of bodies and load capacities of 750 and 1000 lbs and 1, 2, 3, 3½ and 5 tons. Send for specification bulletins of trucks, stating your special requirements. Our engineering department is at your pleasure. Write Dept. "L."

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### GEORGIA FARMS and MANUFACTURING SITES FOR SALE AT BARGAINS

LET US LOCATE YOU.

G. R. MOORE &amp; CO. 1409 Candler Building ATLANTA, GA.

### Going Agricultural Implement and Sawmill Manufacturing Plant FOR SALE AT PUBLIC AUCTION

AUGUST 20th, 1912

Pursuant to the decree of the Court of Common Pleas of York County, Pennsylvania, sitting in Equity, in the case of Elmer H. Bixler et al. vs. Hench & Dromgold Company, No. 2, January Term, 1912, the receivers of said Company will offer at public sale, TO BE HELD AT THE OFFICE OF SAID COMPANY, IN THE CITY OF YORK, PA., on the 20th day of August, 1912, at 1:30 o'clock P. M., the manufacturing plant of said Company, with the various buildings and fixtures, together with all the machinery, equipments, tools, improvements, patterns and office fixtures, also all the goods, materials and manufactured products of said Company on hand at the time of said sale, and the good-will and franchises of said Company. The buildings, containing over 71,000 square feet of floor space, were especially designed and built as a manufacturing plant. The machinery, tools and implements are well adapted to manufacturing agricultural implements, sawmills, etc. A 250-horse-power steam engine furnishes power. The foundry contains a cupola of ten tons capacity. A private switch gives railroad connection with the Pennsylvania and Western Maryland railroads. The crude materials and implements, and the partly manufactured and completed products of said plant, on July 1, 1912, were inventoried at \$59,026. All of the above-mentioned property will be sold as a whole and as a going manufacturing concern.

The terms of sale, among other things, will require the purchaser to pay \$10,000 on the day of sale, or give security to pay the same within five days after the sale; to pay \$10,000 five days after the final confirmation of said sale, and the balance within six months after said confirmation; within thirty days after the confirmation of the sale he shall satisfactorily secure the payment of the further sum of \$30,000 of the balance of the purchase money then remaining unpaid, or, at his option, pay the same within said thirty days.

Possession of the plant and all of said goods will be delivered at any time after the confirmation of the sale and after the purchaser shall have paid \$20,000 in cash and shall have satisfactorily secured the payment of, or paid, the further sum of \$30,000; title to the plant will be delivered six months after the confirmation of the sale upon the payment of the balance of the purchase money.

Plant and goods may be examined and an inventory thereof may be seen at the office of Company. Further particulars and additional terms of sale from

R. J. LEWIS,  
E. K. EMIG,

Receivers of Hench &amp; Dromgold Company.

### 115,000,000 Feet Pine Timber and Cypress in North Carolina

Together with a new and complete sawmill, drykline, planing mill, and complete tramroad with enough rail to log entire tract. Ample locomotives. Timber is well located, and 100,000,000 feet of additional timber is controlled by the situation to be bought as needed and controlled by tramroad and the mill. As principal owner resides a long ways from property, is in ill-health and wants to go to Europe, and no practical sawmill man interested in this, has decided to sell at most attractive prices. Full particulars, write us.

ALBERT FENDIG &amp; CO., Brunswick, Ga.

### FOR SALE. PUBLIC AUCTION

On Wednesday, the 4th day of September, 1912, at BRIGGS' MACHINE SHOP, Sixth street and Third avenue, Brooklyn, N. Y.

One (1) 75 K. W. General Electric 125-volt Generator, directly connected to 13313 Harboring Center-Crank Ideal Engine. First-class operative condition. Complete with switchboard instruments, etc. Can be inspected any time at Briggs' shop.

Private bids before auction will be considered. Full details on application to WALTER S. NEWHOUSE, Attorney, 37 Liberty Street, New York City.

### RETAIL LUMBER YARD FOR SALE

One-half or all of retail lumber yard, planing mill and hardwood flooring plant doing \$10,000 business per month.

W. B. SMITH, Glasgow, Ky.

### Kaolin Lands

FOR SALE

About two thousand acres of kaolin lands, located at Seivern, S. C., Aiken County, on the line of Southern Railway. This kaolin is a high grade and in many places about thirty feet strata and only about five or ten feet from the surface, and there is any quantity of purest spring water directly at the mines. The owners of this property expended about three hundred thousand dollars for a railroad of thirty miles, which runs directly into the property. This road is now owned and operated by the Southern Railway Co. For further information address

KAOLIN MINES

Key Box 859 Charleston, S. C.

### BRICK PLANT IN CENTRAL FLORIDA FOR SALE

Now operating to full capacity. Inexhaustible clay deposit. Good-paying investment, but present owner has good reasons for wishing to sell. Address

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6000 Acres of Florida's choicest fruit and vegetable lands situated in Manatee County—Price attractive. Tuttle Bros. & Bruce, No. 200 N. Delaware St., Indianapolis, Ind.

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7070 spindles, well balanced, complete equipment, modern machinery. Stone buildings, operatives' houses. Address

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FOR SALE—Very desirable planing mill location, with mill fully equipped with modern machinery. Could be converted very easily into box factory. Situated on the Belt Line Railroad at Norfolk, Va., which means free transfer charges on both incoming and outgoing shipments. For further particulars, address "P. M." care of Manufacturers Record.

### FACTORY SITE

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including large buildings and over three acres of ground for expansion, in manufacturing city that is free from labor troubles.

300,000 automobiles made annually within radius of forty miles, with trolley connections. Freight to or from Detroit in one hour.

Factory equipped with power and lighting plants, and must be sold at once.

Address,

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### CUT STONE PLANT FOR SALE

The cut stone plant of the Peter & Melcher Steam Stone Works, Louisville, Ky. Established 1886. Recently equipped with new boiler, Skinner engine, Clark generator, Ingersoll air compressor, three new gangs, tramway with electric crane, new cutting shop with electric crane, Patch diamond saw and planers. This is one of the best-equipped plants south of the Ohio River. This is just the plant for two or three young men to make themselves comfortable. Object for selling, recent death in the firm and the present owners wish to retire. Address

PETER & MELCHER STEAM STONE WORKS  
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### SMALL FOUNDRY FOR SALE

Either in whole or in part. Fully equipped for a general foundry and repair business. Has 5 H. P. electric motor, drill press, lathe, patterns, etc.

TEXTILE MILL SUPPLY CO.,  
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### Manufacturing Plant at a Sacrifice

Vacant manufacturing plant. One new brick building, mill construction, 70x170, 4 stories; one brick building 40x170, 3 stories; also smaller buildings and steam plant. Formerly used as woolen mill. Cheap labor of all kinds.

CARL LEICH, Evansville, Ind.

### BAND MILL

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For Sale—In Northwest Louisiana, Band Mill, capacity forty thousand feet per day; two new steel-casing, high-pressure boilers, 72x18. Everything up to date. Shingle Mill attached. Also small Box Factory and Planing Mill connected with Sawmill. Box Factory consists of 54" McIlhenny band resaw, cut-off and rip table, nailing machine, and 30" double surfacer. Planing Mill consists of one No. 4 Hall & Brown double surfacer and matcher, one Hall & Brown outside moulder, rip saw and cut-off saw. This plant is situated in a city of 35,000 inhabitants. Business is running every day. Good reason for selling. Can give full information and particulars on request. Address S. 33, care Manufacturers Record.

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Woolen Factory. Fully-equipped 2-set woolen factory, modern machinery, stone buildings, water and steam power, electric lights and steam heat. Will sell buildings and machinery separate if desired; 20,700 square ft. floors in buildings. Apply to

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### Timber, Saw and Shingle Mill FOR SALE

We have one of the finest saw and shingle mills in the State, both are new, everything up to date. Capacity 125,000 and 175,000 respectively. Big body of yellow fir and cedar timber with 400,000 000 more adjoining. Complete logging outfits, railroads, etc.

Business is well established. Mills running to full capacity and making money. Good reason for selling.

Address P. O. BOX 1444, Tacoma, Wash.

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### Bargains in Rebuilt Boilers, Engines, Locomotives, Etc.

1 25 H. P. Rebuilt Fire Box Boiler, price \$200.  
1 each 40, 60 and 80 H. P. Rebuilt Fire Box Boilers, with fittings, at a bargain.  
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1 10' dia. Mine Ventilating Fan, with engine.  
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